



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

03/11/03

**CERTIFIED MAIL**

**RE: Preliminary Proposed Title V  
Chapter 3745-77 permit**

06-41-09-0010  
Wheeling-Pittsburgh Steel Corporation - Steubenville  
Harold G. Strohmeyer  
South Third Street Extension  
Mail Drop SS12  
Steubenville, OH 43952

Dear Harold G. Strohmeyer:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 11/22/02. The comment period for the Draft permit has ended. We are now ready to submit this permit to USEPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. **Please submit, in writing, any comments you may have within fourteen (14) days from your receipt of this letter to:**

Ohio Environmental Protection Agency  
Jim Orlemann, Manager, Engineering Section  
Division of Air Pollution Control  
P.O.Box 1049  
Columbus, OH 43216-1049

and

Southeast District Office  
2195 Front Street  
Logan, OH 43138  
(740) 385-8501

Also, if you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.

If comments are not submitted within fourteen (14) days of your receipt of this letter, we will forward the proposed permit to USEPA for approval. All comments received will be carefully considered before proceeding to the proposed permit.

Very truly yours,

Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: Southeast District Office  
File, DAPC PMU



State of Ohio Environmental Protection Agency

PRELIMINARY PROPOSED TITLE V PERMIT

<b>Issue Date:</b> 03/11/03	<b>Effective Date:</b> To be entered upon final issuance	<b>Expiration Date:</b> To be entered upon final issuance
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This document constitutes issuance of a Title V permit for Facility ID: 06-41-09-0010 to:  
**Wheeling-Pittsburgh Steel Corporation - Steubenville**  
 South 3rd Street  
 Steubenville, OH 43952-2729

**Emissions Unit ID (Company ID)/Emissions Unit Activity Description**

B103 (North Boiler 3) Connelly Boiler, Stirling Type, 80 MMBTU/hr	removing iron ore pellets to receiving hopper and conveyor system	P015 (80" Finish Mill Cooling Tower) 80" Finish Mill Cooling Tower
B104 (North Boiler 4) Connelly Boiler, Stirling Type, 80 MMBTU/hr	F101 (North Roads) Paved and unpaved roads and parking lots	P021 (South Iron Torpedo Conditioning) Coke Oven Gas Burning in the De-Kishing Building to condition the iron torpedos
B105 (North Boiler 5) Connelly Boiler, Stirling Type, 80 MMBTU/hr	F103 (North BF Storage Piles) BF Storage Piles (Ore yard and bins)Storage Piles	P022 (South Blast Furnaces Cooling Tower) South Blast Furnace Recycle Cooling Tower
B106 (North Boiler 6) Babcock & Wilcox, Spl. 2 Drum, 211 MMBTU/hr	F104 (North BF Mat. Handling) BF Material Handling (Lime, ore, coke, etc.)	P111 (No. 3 Pickler) Continuous Strip Pickler
B107 (North Boiler 7) Babcock & Wilcox, Spl. 2 Drum, 211 MMBTU/hr	P006 (80" HSM Reheat 2) Surface Combustion - 5 Zone Pusher Type	P112 (North Blast Furnaces Cooling Tower) North Blast Furnace Recycle Cooling Tower
B108 (North Boiler 8) Babcock & Wilcox, Spl. 2 Drum, 211 MMBTU/hr	P007 (80" HSM Reheat 3) Surface Combustion - 5 Zone Pusher Type	P903 (Blast Furnace 5) Blast Furnace including furnace, skip hoist, casthouse, stoves, bleeders
B152 (North Boiler 10) Keystone, 21M, 160 MMBTU/hr	P008 (80" HSM Reheat 4) Surface Combustion - 5 Zone Pusher Type	P904 (BOF Charge-Blow-Tap Vessels "A" and "B") Basic Oxygen Furnaces - Charging, Blow, Tapping, and Slag Dump (includes both "A" and "B" vessels).
F001 (South Roads and Parking Lots) Paved and unpaved roads and parking lots	P009 (BOF Ladle Reheat and Ladle Trim Station) Alternate refining station - most through CAS-OB beginning 8/95.	P907 (BOF Hot Metal Desulfurization and Slag Skimming) Back-up Desulfurization performed in Reladle Pit. Reports required when used.
F002 (South BF Storage Piles) BF Storage Piles (Ore yard and bins)	P010 (BOF Horizontal Ladle Preheater) Used in the Teeming Aisle at the north end to preheat the ladles prior to use at "A" or "B" vessel.	P908 (CAS-OB) Ladle Refining Station
F003 (South BF Material Handling) BF Material Handling (Lime, ore, coke, etc.)	P011 (BOF "A" Ladle Preheater) Used in the Teeming Aisle at the "A" vessel to preheat the ladles prior to tapping the vessel.	P909 (80" HSM Hot Rolling) Roughing and Finishing Stands for the 80" Hot Strip Mill
F005 (BOF Material Handling) BOF Material Handling (Lime, dolomitic lime, limestone, alloys, etc.)	P012 (BOF "B" Ladle Preheater) Used in the Teeming Aisle at the "B" vessel to preheat the ladles prior to tapping the vessel.	P911 (Blast Furnace 1) Blast Furnace including furnace, skip hoist, casthouse, stoves, bleeders
F009 (BOF Hot Metal Reladle) South Reladle Pit-Controlled by a baghouse	P013 (BOF Portable Ladle Preheater) Used in the Teeming Aisle to preheat the ladles prior to transfer to either "A" or "B" vessel.	T102 (Cold Strip HCl Tank) 20,000 gallon tank to store raw HCl used for pickling process
F010 (Slab Caster) Dual Strand Caster (including tundish heating, cutoff torches and slag dumping)	P014 (BOF Gas Tower Cooling Tower) BOF Gas Cooling Tower	
F014 (Primary pellet unloading system) Barge mounted hydraulic excavator with clam-shell bucket		

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Southeast District Office  
2195 Front Street  
Logan, OH 43138  
(740) 385-8501

OHIO ENVIRONMENTAL PROTECTION AGENCY

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Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

#### 1. **Monitoring and Related Record Keeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*
- c. The permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*
  - ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**
    - (a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii)

pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i), (ii) and (iii))*

- (b) Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))*

iii. **For monitoring, record keeping, and reporting requirements:**

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month

period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))*

- iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))*

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))*

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

*(Authority for term: OAC rule 3745-77-07(A)(4))*

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

*(Authority for term: OAC rule 3745-77-07(A)(5))*

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

*(Authority for term: OAC rule 3745-77-07(A)(6))*

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

*(Authority for term: OAC rule 3745-77-07(A)(7))*

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

*(Authority for term: OAC rule 3745-77-07(A)(8))*

**8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(9))*

**9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(10))*

**10. Reopening for Cause**

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after

promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.  
*(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))*

#### **11. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

*(Authority for term: OAC rule 3745-77-07(B))*

#### **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

- iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
  - i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

*(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))*

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

*(Authority for term: OAC rule 3745-77-07(F))*

**14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

*(Authority for term: OAC rules 3745-77-07(H)(1) and (2))*

**15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

*(Authority for term: OAC rule 3745-77-07(G))*

**16. Off-Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)

*(Authority for term: OAC rule 3745-77-07(I))*

**17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

*(This term is provided for informational purposes only.)*

**18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**19. Permit to Install Requirement**

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**20. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**B. State Only Enforceable Section**

**1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this

permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**2. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

**3. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**4. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**5. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**6. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable Section

1. The permittee shall operate and maintain the coke oven gas (COG) desulfurization system in a manner that will prevent the transport and subsequent combustion of COG that contains hydrogen sulfide (H<sub>2</sub>S) in excess of 50 grains/100 dry standard cubic feet.
2. The permittee shall submit reports on a quarterly basis indicating each 12-hour block average H<sub>2</sub>S concentration (see A.4, below).
3. The permittee shall operate and maintain existing equipment to continuously monitor and record the H<sub>2</sub>S concentration in the coke oven gas in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous H<sub>2</sub>S monitoring system including, but not limited to parts per million H<sub>2</sub>S on an instantaneous (one-minute) basis, emissions of H<sub>2</sub>S in units of the applicable standard in the appropriate averaging period (i.e., in grains/100 dscf, in pounds/hour, and in pounds/day), results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the Ohio EPA, Southeast District Office. These reports shall contain the date, commencement and completion times, duration, instances of average daily H<sub>2</sub>S emission rates in excess of the limitations specified in 40 CFR Part 60 or any limitations specified in the terms and conditions of this permit, and corrective actions taken (if any). These reports shall also contain the total sulfur dioxide emissions for the calendar quarter (in tons).

The permittee shall submit reports within thirty (30) days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting any continuous H<sub>2</sub>S monitoring system downtime while the emissions unit was on-line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of source and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, then the permittee shall submit a statement to that effect along with the emissions unit and monitor operating times. These quarterly excess emission reports shall be submitted by February 1, May 1, August 1, and November 1 of each year and shall address the data obtained during previous calendar quarters.

5. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for integrated Iron and Steel Manufacturing, 40 CFR Part 63, Subpart FFFFF. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
6. If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:

- a. for a new affected source, the anticipated date of startup of operation;
- b. the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
- c. any existing federal, State, or local limitations or requirements applicable to the affected source;
- d. for each affected emission point or group of affected emission points, an identification of control technology in place;
- e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
- f. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

7. The Part II application for a MACT determination may, but is not required to, contain the following information:
  - a. recommended emission limitations for the affected source and support information (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);
  - b. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and
  - c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.
8. If the NESHAP is promulgated before the Part II application is due for the relevant source category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:
  - a. Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):
    - i. the name and mailing address of the permittee;
    - ii. the physical location of the source if it is different from the mailing address;
    - iii. identification of the relevant MACT standard and the source's compliance date;
    - iv. a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and
    - v. a statement confirming the facility is a major source for HAPs.

**A. State and Federally Enforceable Section (continued)**

b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:

- i. the methods used to determine compliance;
- ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
- iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
- iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;
- v. an analysis demonstrating whether the affected source is a major source or an area source;
- vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
- vii. a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.

9. Wheeling-Pittsburgh Steel Corporation and Mingo Junction Energy Center, LLC (MJEC) have been determined to be under "common control" and, therefore, are considered a single facility. All permitting actions by Wheeling-Pittsburgh Steel shall take into account emissions from MJEC.

**B. State Only Enforceable Section**

1. The following insignificant emissions units are located at this facility:

F012 - blast furnace recycle lime handling;  
F017 - snorkle repair;  
F018 - slab slitters;  
F106 - no. 14 temper mill;  
F110 - WW lime silo;  
G001 - south gasoline dispensing facility;  
G002 - locomotive fuel tank;  
G101 - north fuel dispensing facility;  
N101 - burnout oven;  
P019 - BOF shot blast;  
P110 - roll shop shot blaster;  
P114 - armature shop shot blast;  
R102 - armature shop dip tank;  
R103 - armature shop spraybooth;  
T002 - 20,000-gallon oil water storage tank #1;  
T003 - 20,000-gallon oil water storage tank #2;  
T004 - 20,000-gallon oil water storage tank #3;  
T103 - WW treatment used oil tank;  
T104 - Hollywood used oil tank;  
T105 - CS WW treatment used oil storage;  
T107 - ferrous chloride tanks;  
T108 - coating oil tank;  
T109 - diesel fuel tank;  
T110 - CS WW treatment used oil storage;  
T111 - WW treatment plant HCL storage;  
T112 - pickler used oil storage tank;  
P020 - diesel driven water pump south;  
P113 - diesel driven water pump north;  
T001 - 6,000-gallon hydraulic oil tank;  
T101 - 520-gallon used oil storage tank;  
T106 - hydraulic oil storage;  
T113 - diesel emergency fire pump;  
F006 - hand scarfing;  
F007 - BOF ingot teeming;  
F011 - BOF hot metal reladle;  
F015 - back-up pellet unloading and handling system;  
F016 - BOF steel reladle;  
F019 - traction sand silo;  
F020 - de-kishing station;  
F107 - N BF thaw ore car;  
F108 - north salamanders;  
F109 - cutting station;  
P016 - south salamanders;  
P017 - caster spray system cooling tower;  
P018 - 80" run out table cooling tower;  
P023 - S BF thaw ore car;  
P910 - carpenter shop; and  
Z017 - CAS-OB heaters.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Boiler 3 (B103)  
**Activity Description:** Connelly Boiler, Stirling Type, 80 MMBTU/hr

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Number 3 boiler, Connelly Stirling-type, 80 million Btu/hr natural gas-, blast furnace gas-, and coke oven gas-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than blast furnace gas (BFG).
	OAC rule 3745-18-47(C)	PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend. The hydrogen sulfide (H2S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H2S per 100 dscf of COG.
	OAC rule 3745-18-47(I)(1)	Sulfur dioxide (SO2) emissions shall not exceed 4.45 lbs/million Btu of actual heat input.  SO2 emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, blast furnace gas, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.
2. The quality of the coke oven gas shall comply with the H2S limitation of 50 gr/100 dscf and the SO2 limitation of 4.45 lbs/million Btu.
3. The quality of the BFG shall comply with the SO2 limitation of 4.45 lbs/million Btu.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall collect representative samples of BFG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of BFG burned;
  - b. the decimal fraction of sulfur in the BFG sample (the sulfur content shall be determined by ASTM 1072-90, 4468-85, 6228-98, or any other USEPA-approved method, as appropriate);
  - c. the average heat content of the BFG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO2 emission rate from the BFG, recorded as pounds of SO2/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO2 emission rate); and
  - e. the hourly SO2 emission rate from the BFG, in lb SO2/hr.

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the COG, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
4. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in A.III.4.c is greater than 950 Btu/cu ft and the average sulfur content collected in A.III.4.b is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
5. The permittee shall calculate and record the total daily SO<sub>2</sub> emission rate, in pounds of SO<sub>2</sub>, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.2.e, A.III.3.e, and A.III.4.e) for each hour of operation.
6. The permittee shall calculate daily the total rolling, 365-day emissions from this unit in tons of SO<sub>2</sub>/rolling, 365-days by using the daily emission rates calculated in A.III.5.
7. The permittee shall calculate and maintain daily records of the rolling, 365-day SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, in tons of SO<sub>2</sub>.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any deviation of the SO<sub>2</sub> emission limitation of 4.45 lbs SO<sub>2</sub>/million Btu as recorded per A.III.2, A.III.3, and A.III.4 above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify any day during which the SO<sub>2</sub> emissions from emissions units B103, B104, B105, B106, B107, and B108, combined, exceeded 1908 tons for any period of 365 consecutive days, and the actual SO<sub>2</sub> emissions, in tons, for each such day.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitations:

PE shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than BFG  
PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 (Fifth Edition) emission factor for natural gas combustion (1.9 lbs/million cu ft), and then dividing by the maximum heat input capacity of the emissions unit (80 million Btu/hr).

When burning only blast furnace gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for blast furnace gas (2.9 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for coke oven gas (6.2 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning a combination of natural gas, blast furnace gas, and/or coke oven gas, compliance may be determined by multiplying the actual hourly gas rate usage of each gas in use by the respective AP-42 emission factor for each gas (see above) burned in combination, and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

If required, compliance shall also be demonstrated based upon the emission testing procedures specified in section A.V.2.

### 1.c Emission Limitation:

The hydrogen sulfide (H<sub>2</sub>S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, section A.1 and the record keeping requirement specified in Part III, section A.III.3.

### 1.d Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 4.45 lbs/million Btu of actual heat input.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in sections A.III.2, A.III.3, and A.III.4.

If required, compliance shall be demonstrated based upon the stack testing methods and procedures specified in section A.V.2.

### 1.e Emission Limitation:

SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections A.III.2 through A.III.7.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub>. Tests shall show compliance while burning natural gas, COG, and BFG individually at the maximum firing rate, or with "worst case" mixtures as documented prior to testing.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Boiler 4 (B104)  
**Activity Description:** Connely Boiler, Stirling Type, 80 MMBTU/hr

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Number 4 boiler, Connely Stirling-type, 80 million Btu/hr natural gas-, blast furnace gas-, and coke oven gas-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than blast furnace gas (BFG).
	OAC rule 3745-18-47(C)	PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend. The hydrogen sulfide (H2S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H2S per 100 dscf of COG.
	OAC rule 3745-18-47(I)(1)	Sulfur dioxide (SO2) emissions shall not exceed 4.45 lbs/million Btu of actual heat input.  SO2 emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, blast furnace gas, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.
2. The quality of the coke oven gas shall comply with the H2S limitation of 50 gr/100 dscf and the SO2 limitation of 4.45 lbs/million Btu.
3. The quality of the BFG shall comply with the SO2 limitation of 4.45 lbs/million Btu.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall collect representative samples of BFG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of BFG burned;
  - b. the decimal fraction of sulfur in the BFG sample (the sulfur content shall be determined by ASTM 1072-90, 4468-85, 6228-98, or any other USEPA-approved method, as appropriate);
  - c. the average heat content of the BFG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO2 emission rate from the BFG, recorded as pounds of SO2/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO2 emission rate); and
  - e. the hourly SO2 emission rate from the BFG, in lb SO2/hr.

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the COG, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
4. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in A.III.4.c is greater than 950 Btu/cu ft and the average sulfur content collected in A.III.4.b is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
5. The permittee shall calculate and record the total daily SO<sub>2</sub> emission rate, in pounds of SO<sub>2</sub>, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.2.e, A.III.3.e, and A.III.4.e) for each hour of operation.
6. The permittee shall calculate daily the total rolling, 365-day emissions from this unit in tons of SO<sub>2</sub>/rolling, 365-days by using the daily emission rates calculated in A.III.5.
7. The permittee shall calculate and maintain daily records of the rolling, 365-day SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, in tons of SO<sub>2</sub>.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any deviation of the SO<sub>2</sub> emission limitation of 4.45 lbs SO<sub>2</sub>/million Btu as recorded per A.III.2, A.III.3, and A.III.4 above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify any day during which the SO<sub>2</sub> emissions from emissions units B103, B104, B105, B106, B107, and B108, combined, exceeded 1908 tons for any period of 365 consecutive days, and the actual SO<sub>2</sub> emissions, in tons, for each such day.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 shall be determined in accordance with the following methods:

#### 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitations:

PE shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than BFG  
PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 (Fifth Edition) emission factor for natural gas combustion (1.9 lbs/million cu ft), and then dividing by the maximum heat input capacity of the emissions unit (80 million Btu/hr).

When burning only blast furnace gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for blast furnace gas (2.9 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for coke oven gas (6.2 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning a combination of natural gas, blast furnace gas, and/or coke oven gas, compliance may be determined by multiplying the actual hourly gas rate usage of each gas in use by the respective AP-42 emission factor for each gas (see above) burned in combination, and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

If required, compliance shall also be demonstrated based upon the emission testing procedures specified in section A.V.2.

### 1.c Emission Limitation:

The hydrogen sulfide (H<sub>2</sub>S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, section A.1 and the record keeping requirement specified in Part III, section A.III.3.

### 1.d Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 4.45 lbs/million Btu of actual heat input.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in sections A.III.2, A.III.3, and A.III.4.

If required, compliance shall be demonstrated based upon the stack testing methods and procedures specified in section A.V.2.

### 1.e Emission Limitation:

SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections A.III.2 through A.III.7.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub>. Tests shall show compliance while burning natural gas, COG, and BFG individually at the maximum firing rate, or with "worst case" mixtures as documented prior to testing.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Boiler 5 (B105)  
**Activity Description:** Connely Boiler, Stirling Type, 80 MMBTU/hr

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Number 5 boiler, Connely Stirling-type, 80 million Btu/hr natural gas-, blast furnace gas-, and coke oven gas-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than blast furnace gas (BFG).
	OAC rule 3745-18-47(C)	PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend. The hydrogen sulfide (H2S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H2S per 100 dscf of COG.
	OAC rule 3745-18-47(I)(1)	Sulfur dioxide (SO2) emissions shall not exceed 4.45 lbs/million Btu of actual heat input.  SO2 emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, blast furnace gas, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.
2. The quality of the coke oven gas shall comply with the H2S limitation of 50 gr/100 dscf and the SO2 limitation of 4.45 lbs/million Btu.
3. The quality of the BFG shall comply with the SO2 limitation of 4.45 lbs/million Btu.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall collect representative samples of BFG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of BFG burned;
  - b. the decimal fraction of sulfur in the BFG sample (the sulfur content shall be determined by ASTM 1072-90, 4468-85, 6228-98, or any other USEPA-approved method, as appropriate);
  - c. the average heat content of the BFG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO2 emission rate from the BFG, recorded as pounds of SO2/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO2 emission rate); and
  - e. the hourly SO2 emission rate from the BFG, in lb SO2/hr.

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the COG, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
4. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in A.III.4.c is greater than 950 Btu/cu ft and the average sulfur content collected in A.III.4.b is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
5. The permittee shall calculate and record the total daily SO<sub>2</sub> emission rate, in pounds of SO<sub>2</sub>, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.2.e, A.III.3.e, and A.III.4.e) for each hour of operation.
6. The permittee shall calculate daily the total rolling, 365-day emissions from this unit in tons of SO<sub>2</sub>/rolling, 365-days by using the daily emission rates calculated in A.III.5.
7. The permittee shall calculate and maintain daily records of the rolling, 365-day SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, in tons of SO<sub>2</sub>.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any deviation of the SO<sub>2</sub> emission limitation of 4.45 lbs SO<sub>2</sub>/million Btu as recorded per A.III.2, A.III.3, and A.III.4 above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify any day during which the SO<sub>2</sub> emissions from emissions units B103, B104, B105, B106, B107, and B108, combined, exceeded 1908 tons for any period of 365 consecutive days, and the actual SO<sub>2</sub> emissions, in tons, for each such day.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 shall be determined in accordance with the following methods:

#### 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitations:

PE shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than BFG  
PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 (Fifth Edition) emission factor for natural gas combustion (1.9 lbs/million cu ft), and then dividing by the maximum heat input capacity of the emissions unit (80 million Btu/hr).

When burning only blast furnace gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for blast furnace gas (2.9 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for coke oven gas (6.2 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning a combination of natural gas, blast furnace gas, and/or coke oven gas, compliance may be determined by multiplying the actual hourly gas rate usage of each gas in use by the respective AP-42 emission factor for each gas (see above) burned in combination, and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

If required, compliance shall also be demonstrated based upon the emission testing procedures specified in section A.V.2.

### 1.c Emission Limitation:

The hydrogen sulfide (H<sub>2</sub>S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, section A.1 and the record keeping requirement specified in Part III, section A.III.3.

### 1.d Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 4.45 lbs/million Btu of actual heat input.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in sections A.III.2, A.III.3, and A.III.4.

If required, compliance shall be demonstrated based upon the stack testing methods and procedures specified in section A.V.2.

### 1.e Emission Limitation:

SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections A.III.2 through A.III.7.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub>. Tests shall show compliance while burning natural gas, COG, and BFG individually at the maximum firing rate, or with "worst case" mixtures as documented prior to testing.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Boiler 6 (B106)  
**Activity Description:** Babcock & Wilcox, Spl. 2 Drum, 211 MMBTU/hr

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Number 6 boiler, Babcock & Wilcox, Spl. 2 Drum, 211 million Btu/hr natural gas-, blast furnace gas-, and coke oven gas-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than blast furnace gas (BFG).
	OAC rule 3745-18-47(C)	PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend.
	OAC rule 3745-18-47(I)(1)	The hydrogen sulfide (H2S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H2S per 100 dscf of COG.  Sulfur dioxide (SO2) emissions shall not exceed 4.45 lbs/million Btu of actual heat input.  SO2 emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, blast furnace gas, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.
2. The quality of the coke oven gas shall comply with the H2S limitation of 50 gr/100 dscf and the SO2 limitation of 4.45 lbs/million Btu.
3. The quality of the BFG shall comply with the SO2 limitation of 4.45 lbs/million Btu.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall collect representative samples of BFG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of BFG burned;
  - b. the decimal fraction of sulfur in the BFG sample (the sulfur content shall be determined by ASTM 1072-90, 4468-85, 6228-98, or any other USEPA-approved method, as appropriate);
  - c. the average heat content of the BFG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO2 emission rate from the BFG, recorded as pounds of SO2/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO2 emission rate); and
  - e. the hourly SO2 emission rate from the BFG, in lb SO2/hr.

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the COG, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
4. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in A.III.4.c is greater than 950 Btu/cu ft and the average sulfur content collected in A.III.4.b is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
5. The permittee shall calculate and record the total daily SO<sub>2</sub> emission rate, in pounds of SO<sub>2</sub>, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.2.e, A.III.3.e, and A.III.4.e) for each hour of operation.
6. The permittee shall calculate daily the total rolling, 365-day emissions from this unit in tons of SO<sub>2</sub>/rolling, 365-days by using the daily emission rates calculated in A.III.5.
7. The permittee shall calculate and maintain daily records of the rolling, 365-day SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, in tons of SO<sub>2</sub>.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any deviation of the SO<sub>2</sub> emission limitation of 4.45 lbs SO<sub>2</sub>/million Btu as recorded per A.III.2, A.III.3, and A.III.4 above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify any day during which the SO<sub>2</sub> emissions from emissions units B103, B104, B105, B106, B107, and B108, combined, exceeded 1908 tons for any period of 365 consecutive days, and the actual SO<sub>2</sub> emissions, in tons, for each such day.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitations:

PE shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than BFG  
PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 (Fifth Edition) emission factor for natural gas combustion (1.9 lbs/million cu ft), and then dividing by the maximum heat input capacity of the emissions unit (80 million Btu/hr).

When burning only blast furnace gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for blast furnace gas (2.9 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for coke oven gas (6.2 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning a combination of natural gas, blast furnace gas, and/or coke oven gas, compliance may be determined by multiplying the actual hourly gas rate usage of each gas in use by the respective AP-42 emission factor for each gas (see above) burned in combination, and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

If required, compliance shall also be demonstrated based upon the emission testing procedures specified in section A.V.2.

### 1.c Emission Limitation:

The hydrogen sulfide (H<sub>2</sub>S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, section A.1 and the record keeping requirement specified in Part III, section A.III.3.

### 1.d Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 4.45 lbs/million Btu of actual heat input.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in sections A.III.2, A.III.3, and A.III.4.

If required, compliance shall be demonstrated based upon the stack testing methods and procedures specified in section A.V.2.

### 1.e Emission Limitation:

SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections A.III.2 through A.III.7.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub>. Tests shall show compliance while burning natural gas, COG, and BFG individually at the maximum firing rate, or with "worst case" mixtures as documented prior to testing.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Boiler 7 (B107)  
**Activity Description:** Babcock & Wilcox, Spl. 2 Drum, 211 MMBTU/hr

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Number 7 boiler, Babcock & Wilcox, Spl. 2 Drum, 211 million Btu/hr natural gas-, blast furnace gas-, and coke oven gas-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than blast furnace gas (BFG).
	OAC rule 3745-18-47(C)	PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend. The hydrogen sulfide (H2S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H2S per 100 dscf of COG.
	OAC rule 3745-18-47(I)(1)	Sulfur dioxide (SO2) emissions shall not exceed 4.45 lbs/million Btu of actual heat input.  SO2 emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, blast furnace gas, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.
2. The quality of the coke oven gas shall comply with the H2S limitation of 50 gr/100 dscf and the SO2 limitation of 4.45 lbs/million Btu.
3. The quality of the BFG shall comply with the SO2 limitation of 4.45 lbs/million Btu.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall collect representative samples of BFG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of BFG burned;
  - b. the decimal fraction of sulfur in the BFG sample (the sulfur content shall be determined by ASTM 1072-90, 4468-85, 6228-98, or any other USEPA-approved method, as appropriate);
  - c. the average heat content of the BFG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO2 emission rate from the BFG, recorded as pounds of SO2/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO2 emission rate); and
  - e. the hourly SO2 emission rate from the BFG, in lb SO2/hr.

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the COG, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
4. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in A.III.4.c is greater than 950 Btu/cu ft and the average sulfur content collected in A.III.4.b is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
5. The permittee shall calculate and record the total daily SO<sub>2</sub> emission rate, in pounds of SO<sub>2</sub>, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.2.e, A.III.3.e, and A.III.4.e) for each hour of operation.
6. The permittee shall calculate daily the total rolling, 365-day emissions from this unit in tons of SO<sub>2</sub>/rolling, 365-days by using the daily emission rates calculated in A.III.5.
7. The permittee shall calculate and maintain daily records of the rolling, 365-day SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, in tons of SO<sub>2</sub>.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any deviation of the SO<sub>2</sub> emission limitation of 4.45 lbs SO<sub>2</sub>/million Btu as recorded per A.III.2, A.III.3, and A.III.4 above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify any day during which the SO<sub>2</sub> emissions from emissions units B103, B104, B105, B106, B107, and B108, combined, exceeded 1908 tons for any period of 365 consecutive days, and the actual SO<sub>2</sub> emissions, in tons, for each such day.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 shall be determined in accordance with the following methods:

#### 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitations:

PE shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than BFG  
PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 (Fifth Edition) emission factor for natural gas combustion (1.9 lbs/million cu ft), and then dividing by the maximum heat input capacity of the emissions unit (80 million Btu/hr).

When burning only blast furnace gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for blast furnace gas (2.9 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for coke oven gas (6.2 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning a combination of natural gas, blast furnace gas, and/or coke oven gas, compliance may be determined by multiplying the actual hourly gas rate usage of each gas in use by the respective AP-42 emission factor for each gas (see above) burned in combination, and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

If required, compliance shall also be demonstrated based upon the emission testing procedures specified in section A.V.2.

### 1.c Emission Limitation:

The hydrogen sulfide (H<sub>2</sub>S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, section A.1 and the record keeping requirement specified in Part III, section A.III.3.

### 1.d Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 4.45 lbs/million Btu of actual heat input.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in sections A.III.2, A.III.3, and A.III.4.

If required, compliance shall be demonstrated based upon the stack testing methods and procedures specified in section A.V.2.

### 1.e Emission Limitation:

SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections A.III.2 through A.III.7.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub>. Tests shall show compliance while burning natural gas, COG, and BFG individually at the maximum firing rate, or with "worst case" mixtures as documented prior to testing.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Boiler 8 (B108)  
**Activity Description:** Babcock & Wilcox, Spl. 2 Drum, 211 MMBTU/hr

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Number 8 boiler, Babcock & Wilcox, Spl. 2 Drum, 211 million Btu/hr natural gas-, blast furnace gas-, and coke oven gas-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than blast furnace gas (BFG).
	OAC rule 3745-18-47(C)	PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend.
	OAC rule 3745-18-47(I)(1)	The hydrogen sulfide (H <sub>2</sub> S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H <sub>2</sub> S per 100 dscf of COG.  Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 4.45 lbs/million Btu of actual heat input.  SO <sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, blast furnace gas, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.
2. The quality of the coke oven gas shall comply with the H<sub>2</sub>S limitation of 50 gr/100 dscf and the SO<sub>2</sub> limitation of 4.45 lbs/million Btu.
3. The quality of the BFG shall comply with the SO<sub>2</sub> limitation of 4.45 lbs/million Btu.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall collect representative samples of BFG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of BFG burned;
  - b. the decimal fraction of sulfur in the BFG sample (the sulfur content shall be determined by ASTM 1072-90, 4468-85, 6228-98, or any other USEPA-approved method, as appropriate);
  - c. the average heat content of the BFG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the BFG, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the BFG, in lb SO<sub>2</sub>/hr.

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the COG, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
4. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot);
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, recorded as pounds of SO<sub>2</sub>/million Btu actual heat input (the resulting decimal fraction of sulfur and heat content determined in (b) and (c) above shall be used as input into the equation defined in OAC rule 3745-18-04(F) to calculate the SO<sub>2</sub> emission rate); and
  - e. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in A.III.4.c is greater than 950 Btu/cu ft and the average sulfur content collected in A.III.4.b is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
5. The permittee shall calculate and record the total daily SO<sub>2</sub> emission rate, in pounds of SO<sub>2</sub>, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.2.e, A.III.3.e, and A.III.4.e) for each hour of operation.
6. The permittee shall calculate daily the total rolling, 365-day emissions from this unit in tons of SO<sub>2</sub>/rolling, 365-days by using the daily emission rates calculated in A.III.5.
7. The permittee shall calculate and maintain daily records of the rolling, 365-day SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, in tons of SO<sub>2</sub>.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any deviation of the SO<sub>2</sub> emission limitation of 4.45 lbs SO<sub>2</sub>/million Btu as recorded per A.III.2, A.III.3, and A.III.4 above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify any day during which the SO<sub>2</sub> emissions from emissions units B103, B104, B105, B106, B107, and B108, combined, exceeded 1908 tons for any period of 365 consecutive days, and the actual SO<sub>2</sub> emissions, in tons, for each such day.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 shall be determined in accordance with the following methods:

#### 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitations:

PE shall not exceed 0.020 lb/million Btu of actual heat input when burning fuel other than BFG  
PE shall not exceed 0.040 lb/million Btu of actual heat input when firing BFG or BFG blend

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 (Fifth Edition) emission factor for natural gas combustion (1.9 lbs/million cu ft), and then dividing by the maximum heat input capacity of the emissions unit (80 million Btu/hr).

When burning only blast furnace gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for blast furnace gas (2.9 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit by the AP-42 emission factor for coke oven gas (6.2 lbs/million cu ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

When burning a combination of natural gas, blast furnace gas, and/or coke oven gas, compliance may be determined by multiplying the actual hourly gas rate usage of each gas in use by the respective AP-42 emission factor for each gas (see above) burned in combination, and then dividing by the maximum hourly heat input capacity of the emissions unit (80 million Btu/hr).

If required, compliance shall also be demonstrated based upon the emission testing procedures specified in section A.V.2.

### 1.c Emission Limitation:

The hydrogen sulfide (H<sub>2</sub>S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, section A.1 and the record keeping requirement specified in Part III, section A.III.3.

### 1.d Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 4.45 lbs/million Btu of actual heat input.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in sections A.III.2, A.III.3, and A.III.4.

If required, compliance shall be demonstrated based upon the stack testing methods and procedures specified in section A.V.2.

### 1.e Emission Limitation:

SO<sub>2</sub> emissions from boilers B103, B104, B105, B106, B107, and B108, combined, shall not exceed 1908 tons for any period of 365 consecutive days.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections A.III.2 through A.III.7.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub>. Tests shall show compliance while burning natural gas, COG, and BFG individually at the maximum firing rate, or with "worst case" mixtures as documented prior to testing.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Boiler 10 (B152)  
**Activity Description:** Keystone, 21M, 160 MMBTU/hr

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Number 10 boiler, Keystone Model 21M, 160 million Btu/hr natural gas-fired	OAC rule 3745-31-05(A)(3) (PTI 17-037)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A) and 3745-17-10(B)(1).
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/million Btu of actual heat input.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.

**III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain records of the quantity of natural gas combusted during each operating day, in cubic feet.
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-037, issued on 01/04/1985. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-037, issued on 01/04/1985. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

**V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1 shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

PE shall not exceed 0.020 lb/million Btu of actual heat input.

Applicable Compliance Method:

Compliance may be demonstrated through emission calculations using the particulate emission factor from AP-42, Chapter 1, Table 1.4-2 (7/98) and the maximum hourly fuel consumption:

$$(1.9 \text{ lb PE}/1,000,000 \text{ cu.ft.}) \times (156,900 \text{ cu.ft./hr}) \times (1 \text{ hr}/160 \text{ million Btu}) = 0.002 \text{ lb/million Btu}$$

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

**1.b** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**V. Testing Requirements (continued)**

2. If required, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
  - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
  - c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-037, issued on 01/04/1985. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** South Roads and Parking Lots (F001)  
**Activity Description:** Paved and unpaved roads and parking lots

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
South paved and unpaved roadways and parking areas (see sections A.I.2.a and A.I.2.b)	OAC rule 3745-17-13(F)(2)	<p>The permittee shall comply with the "Work Practice Plan in Appendix A" of this rule for the control of fugitive dust.</p> <p>Total combined emissions of PM10 from the unpaved roads, parking lots, laydown, entrance, unloading areas and berms, irregular paved surfaces, and paved roads, which are located at the Steubenville South (Mingo Junction) facility and are identified in Sections B and C of OAC rule 3745-17-13 Appendix A, shall not exceed 4.91 pounds per hour.</p>

**2. Additional Terms and Conditions**

- 2.a The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rule 3745-17-13 are listed below:

Paved roadways:

- A - Entrance road;
- B - BOF scrap handling road;
- D - 80" hot strip mill road;
- E - Blast furnace/labor office road;
- F - Center road section;
- BB - Office road; and
- HH - Fork truck road, paved section.

Paved parking areas:

none

- 2.b The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rule 3745-17-13 are listed below:

Unpaved roadways:

- B - Scrap handling road berms;
- D - 80" hot strip mill road wide berms;
- E - Blast furnace/labor office road berms;
- L - Slag haul road and berms;
- J - Strip mill road;
- K - Caster access road;
- P - Middle road;
- U - Short road;
- W - River road;
- Z - 44" blooming mill road;
- AA - Old heat treat road;
- HH - Fork truck road, unpaved section;
- Unpaved Myjack Road (Extra South Road);
- Cool Springs Unpaved Road (Extra South Road); and
- Unpaved Residual Management Road (Extra South Road).

Unpaved parking areas:

- G - Truck turn around;
- H - Main parking;
- M - Strip mill area;
- O - Slab laydown;
- Q - Lab parking;
- R - Basic oxygen furnace 4 parking;
- S - IMS corner;
- T - Lime area;
- X - Used machine parts storage yard;
- Y - Cooling tower area;
- CC - Coil storage yard;
- DD - State street parking lot 1;
- EE - State street parking lot 2;
- GG - 44" blooming mill storage yard; and
- JJ - Visitors parking area.

## 2. Additional Terms and Conditions (continued)

**2.c** The permittee shall employ dust control measures on all unpaved surfaces and irregular paved surfaces that cannot be adequately cleaned under the provisions of section C of OAC rule 3745-17-13, Appendix A, identified in section A.I.2.b, in accordance with the following:

i. All unpaved surfaces and irregular paved surfaces identified in Attachment 1 of OAC rule 3745-17-13, Appendix A (map) shall be treated in accordance with the schedule in Attachment 1, following the initial establishment of chemical ground inventory, with a chemical dust suppressant (petroleum resin emulsions, asphalt emulsions, or acrylic cements) on a year-round (12-month) basis, except as provided under sections A.2.c.v, A.2.c.vi, and A.VI. The dust suppressant application intensity and frequency during the first two months of this program shall be sufficient to achieve the ground inventory specified in section A.2.c.iv by the end of the 2-month period.

ii. Tri-weekly, monthly and quarterly applications shall be accomplished before the end of the first full week of the tri-week/month/quarter except as provided under sections A.2.c.v, A.2.c.vi, and A.VI.

iii. For each dust suppressant application during the initial 2-month period of the dust control program, the concentrated dust suppressant shall be diluted at a ratio of not more than five (5) parts water to one (1) part concentrate and the resulting solution shall be applied at a minimum rate of 1.0 gallon per square yard of unpaved or irregular paved surface. The dust suppressant shall be applied at sufficient intervals and intensities after the initial two-month period as to maintain the ground inventory. Except as provided in sections A.2.c.vi and A.VI, the continuing program shall provide for the application of dust suppressant specified in Attachment 1 diluted by no more than seven (7) parts water to one part chemical and applied at a rate of not less than 0.5 gallon per square yard of unpaved or irregular paved surface.

iv. A minimum ground inventory of 0.25 gallon of concentrate per square yard of road surface, as specified in Section 3.0 of the USEPA reference document Control of Open Fugitive Dust Sources (EPA-450/3-88-008) shall be maintained.

v. Applications of dust suppressant may be delayed by not more than three (3) days for any scheduled date upon which the unpaved or irregular paved surface is snow and/or ice covered or has experienced > 0.25 inch of rainfall.

In the event of persistent adverse weather conditions such as snow and/or ice cover or excessive rainfall, the Company may petition the Director or his representative verbally with written confirmation within three (3) days for extended exemptions which may be granted as deemed appropriate by the Director or his representative.

vi. Applications of chemical dust suppressant for the second year (after establishment of the ground inventory specified in section A.I.2.c.iv) and beyond may follow the revised schedule, application intensities, and application concentrations shown in Table 11 of OAC rule 3745-17-13, Appendix A, Attachment 1.

**2.d** All paved roads identified in Attachment 1 of OAC rule 3745-17-13, Appendix A (map) shall be cleaned via vacuum sweeping on a daily, year-round (12-month) basis, except as provided below:

i. Daily sweeping may be suspended only when there is snow, ice cover, or standing water on the surface. All such suspensions shall be reported and verified as required under sections A.III.2, A.IV.4, A.IV.5, and A.IV.6 (record keeping and reporting).

ii. Irregular paved surfaces that cannot feasibly or adequately be cleaned by vacuum sweeping shall be chemically sprayed in accordance with provisions of section A.2.c.

**2.e** The permittee shall ensure the availability, required scheduling, and proper maintenance of vacuum sweeping trucks. The collection hopper of the vacuum truck shall be designed and maintained so as to prevent fugitive dust emissions.

**2.f** Material collected by the vacuum sweeping truck shall be handled and disposed of in a manner that minimizes fugitive dust emissions, including but not limited to, wet dumping and chemical treatment or stabilization of stored material.

**2.g** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

**2.h** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times.

**2.i** The permittee shall ensure the availability, required scheduling, and proper maintenance of spray trucks that are designed and equipped, at minimum, with a 2,000-gallon capacity tank, a spray bar system capable of applying the dust suppressant solution at a coverage rate of at least 1.3 gallons per square yard of surface, a certified flow metering device calibrated in units of gallons per minute, and an apparatus that will facilitate manual applications of the solution to areas not readily accessible by the spray truck.

## II. Operational Restrictions

None

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall maintain records relative to the program to control emissions from unpaved roads, parking lots, laydown, entrance, unloading areas and berms, and irregular paved surfaces identified in Attachment 1. These records shall include, at a minimum, the following information:

- control equipment maintenance records;
- scheduled and unscheduled equipment malfunctions and downtime;
- meteorological log to include average daily temperature, daily precipitation and unusual meteorological occurrences;
- the date, type and quantity received for each delivery of chemical dust suppressant;
- for each dust suppressant application date, and for each unpaved road, area, or berm, or irregular paved surface identified in Attachment 1, start and stop times, average truck speed, number of passes, amount of solution applied, and the dilution ratio of the solution; and
- identification of areas where manual spraying was utilized.

These records shall be retained by the permittee for five (5) years and shall be made available to the Director or his representative upon request.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain daily records for the paved road cleaning program. These records shall include, at a minimum, the following information:
  - a. control equipment maintenance records;
  - b. scheduled and unscheduled equipment malfunctions and downtime;
  - c. meteorological log to include average daily temperature, daily precipitation and unusual meteorological occurrences;
  - d. qualitative description of the road surface conditions;
  - e. start and stop time, average truck speed, number of passes for each paved road identified in Attachment 1;
  - f. identification of areas where chemical treatment was utilized;
  - g. qualitative descriptions of areas of unusually high silt loadings from spills and track-ons; and
  - h. total amount of dust collected by vacuum trucks in pounds or tons.

These records shall be retained by the permittee for five (5) years and shall be made available to the Director or his representative upon request.

### IV. Reporting Requirements

1. A calendar quarterly report shall be submitted to the Director or his representative. The report shall contain all information cited in section A.III.1, above and a description of any deviations from the control program and the reasons for such deviations. The report shall be certified to be accurate by management and shall be submitted within fifteen (15) days after the end of the quarter.
2. The permittee shall notify the Director or his representative, in writing, of any noncompliance with section B of OAC rule 3745-17-13, Appendix A. Such notice shall be submitted within five (5) days of the noncompliance occurrence and shall include a detailed explanation of the cause of such noncompliance, all remedial actions required, and the date by which compliance was or will be reestablished.
3. The permittee shall submit to the Director or his representative an annual report which demonstrates compliance with the PM10 emission rates specified in sections A.1 and A.2 of OAC rule 3745-17-13, Appendix A for the unpaved surfaces, and the irregular paved surfaces that cannot be adequately cleaned under the provisions of section B of OAC rule 3745-17-13, Appendix A, at the Mingo Junction and Steubenville facilities. The PM10 emission rate for each individual network segment identified in Attachment 1 shall be reported along with the total PM10 emission rate for each facility. The PM10 emission rates shall be calculated using the methodology specified in section V.1 and shall reflect the road network as it exists at the end of each calendar year. Each annual report shall be submitted by no later than January 31 of the succeeding year.
4. A calendar quarterly report shall be submitted to the Director or his representative. The report shall contain all of the information contained in section A.III.2 above and a description of any deviation from the control program and the reasons for such deviation. The report shall be certified to be accurate by company management and shall be submitted within fifteen (15) days after the end of the quarter.
5. The permittee shall notify the Director or his representative, in writing, of any noncompliance with section C of OAC rule 3745-17-13, Appendix A. Such notice shall be submitted within five (5) days of the non-compliance occurrence and shall include a detailed explanation of the cause of such noncompliance, all remedial actions required and the date by which compliance was or will be reestablished.
6. The permittee shall submit to the Director or his representative an annual report which demonstrates compliance with the PM10 emission rates specified in sections A.1 and A.2 of OAC rule 3745-17-13, Appendix A for the paved roads (excluding irregular paved surfaces that cannot be adequately cleaned under the provisions of section C) at the Mingo Junction and Steubenville facilities. The PM10 emission rate for each individual network segment identified in Attachment 1 shall be reported along with the total PM10 emission rate for each facility. The PM10 emission rates shall be calculated using the methodology specified in section V.1 of this permit and shall reflect the road network as it exists at the end of each calendar year. Each annual report shall be submitted by no later than January 31 of the succeeding year.

### V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

4.91 lbs/hr of PM10

Applicable Compliance Method:

Compliance shall be determined by the methodology set forth in the U.S. Environmental Protection Agency reference document "Control of Open Fugitive Dust Sources" (EPA-450/3-88-008), sections 2.0 and 3.0, and using the dust control plans identified in sections B and C of OAC rule 3745-17-13, Appendix A.

### VI. Miscellaneous Requirements

1. The permittee has the right to petition the Ohio EPA for written approval of definitive treatment methods, treatment schedules and procedures or reporting requirements different from those required herein. No action shall be taken by the permittee in employing the alternative practices until the Director or his representative issues a written approval to the permittee. Such alternative practices must be demonstrated to the Director or his representative to result in equivalent dust control effectiveness in accordance with "Control of Open Fugitive Dust Sources" (EPA -450/3-88-008). The permittee reserves the right to contest any disapproval of such petition in the appropriate judicial forum.
2. In the event that the permittee certifies that all of a roadway or parking area identified in sections A.I.2.a and/or A.I.2.b of this permit has been discontinued, the dust suppression or surface cleaning program for that road or parking lot may be terminated or reduced. If the permittee begins to utilize any new roadway, parking lot or other vehicular activity area not shown in sections A.I.2.a and/or A.I.2.b, it shall notify the Director or his representative in the reports required under this permit and treat or clean the road or area in accordance with the procedures obtained herein, unless more stringent requirements are specified in any permit to install issued by the Ohio EPA for such roadway or area.
3. The Director or his representative shall not be precluded from requiring adjustments, including increased chemical suppressant application or cleaning, if on-site inspections reveal that the program contained herein does not prevent excessive visible dust entrainment and emission from a particular road or area.
4. In the event that an unpaved road or area that has been chemically treated becomes completely hardened and cemented by such treatment so as to become like a paved road as demonstrated by observation, by compaction tests and silt analyses, or in the event that the permittee paves any unpaved haul road or area, that road or area may be treated as a paved surface and cleaned in accordance with the procedures outlined in sections A.I.2.c through A.I.2.e of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** South BF Storage Piles (F002)  
**Activity Description:** BF Storage Piles (Ore yard and bins)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Load-in and load-out of Blast Furnace #5 storage piles and bins (see section A.I.2.a. for identification of storage piles and bins) and storage pile wind erosion	OAC rule 3745-17-07(B)(6)	no visible particulate emissions from any material storage pile except for a period of time not to exceed 13 minutes during any 60-minute observation period
	OAC rule 3745-17-08(B), (B)(6)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.b through A.I.2.f)

**2. Additional Terms and Conditions**

- 2.a The blast furnace #5 storage piles and bins that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:
  - i. BOF slag storage piles;
  - ii. coke storage piles;
  - iii. dolomite storage piles;
  - iv. iron pellet storage piles;
  - v. scrap storage piles; and
  - vi. sinter storage piles.

All storage piles for blast furnace #5 include the ore yard and the storage bins under the trestle south of the furnace.
- 2.b The permittee shall employ reasonably available control measures on all BOF slag, coke, dolomite, iron pellet, scrap and sinter storage piles, bins, and load-in/load-out operations associated with blast furnace #5 for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the accepted permit application, the permittee has committed to treat the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile operations with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance at all times. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c The above-mentioned control measures shall be employed for each of the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage piles and bins for blast furnace #5 if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during any such operation until further observation confirms that use of the measures is unnecessary.
- 2.d The permittee shall employ reasonably available control measures for wind erosion from pile surfaces associated with the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage piles and bins for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the accepted permit application, the permittee has committed to treat the storage piles and bins with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies and maintain adequate enclosure and material of sufficient size and density to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e The above-mentioned control measures shall be employed for each blast furnace storage pile and bin in order to minimize or eliminate emissions due to wind erosion if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measures shall not be necessary for a blast furnace storage pile and bin that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- 2.f Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. Except as otherwise provided in this section, the permittee shall perform inspections of each BOF slag, coke, dolomite, iron pellet, scrap, and sinter load-in operation at each blast furnace storage pile and bin in accordance with the following frequencies:
 

Storage pile identification: BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage piles and bins.

Minimum load-in inspection frequency: daily.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. Except as otherwise provided in this section, the permittee shall perform inspections of each BOF slag, coke, dolomite, iron pellet, scrap, and sinter load-out operation at each blast furnace storage pile and bin in accordance with the following frequencies:

Storage pile identification: BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage piles and bins.

Minimum load-out inspection frequency: daily.

3. Except as otherwise provided in this section, the permittee shall perform inspections for wind erosion from BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile and bin surface in accordance with the following frequencies:

Storage pile identification: BOF slag, coke, dolomite, iron pellet, scrap, and sinter piles and bins.

Minimum wind erosion inspection frequency: daily.

4. No inspection shall be necessary for wind erosion from the surface of a pile or bin when the pile or bin is covered with snow and/or ice and for any storage pile or bin activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one day.
5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for BOF slag, coke, dolomite, iron pellet, scrap, and sinter load-in or load-out of a storage pile and/or bin and wind erosion from the surfaces of these storage piles and bins. The inspections shall be performed during representative, normal storage pile and bin operating conditions.
6. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative approach to the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the applicable requirements. If the alternative approach is determined to be acceptable, the alternative approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)
7. The permittee shall maintain records of the following information:
- the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - the dates the control measures were implemented; and
  - on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in section A.III.7.d shall be kept separately for (i) the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile and bin load-in operations, (ii) the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile and bin load-out operations, (iii) the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile and bin wind erosion, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
- each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
3. If there are no deviations during a calendar quarter that must be reported pursuant to the reporting requirements of this permit, the permittee shall submit a quarterly report, in accordance with section B.6 of the General Terms and Conditions of this permit, which states that no deviations occurred during that quarter.

### V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:
- 1.a Emission Limitation:
- no visible particulate emissions from any material storage pile except for a period of time not to exceed 13 minutes during any 60-minute observation period
- Applicable Compliance Method:
- Compliance with the visible emission limitation identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

### VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** South BF Material Handling (F003)  
**Activity Description:** BF Material Handling (Lime, ore, coke, etc.)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Blast Furnace no. 5 material handling operations (see section A.1.2.a)	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.  reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.1.2.b through A.1.2.e)  See section A.II.1.
	OAC rule 3745-17-08(B)	
	OAC rule 3745-17-13(F)(3)	

**2. Additional Terms and Conditions**

**2.a** The operations covered under this permit (F003) are as follows:

- i. BOF slag rail car bottom dumping, bin unloading/belt conveyor loading, weigh hopper loading;
- ii. coke rail car bottom dumping, bin unloading/belt conveyor loading, shaker/weigh hopper loading;
- iii. dolomite rail car bottom dumping, bin unloading/belt conveyor loading, belt conveyor unloading/weigh hopper loading;
- iv. scrap rail car bottom dumping, bin unloading/belt conveyor loading, belt conveyor unloading/weigh hopper loading;
- v. sinter rail car bottom dumping, bin unloading/belt conveyor loading, belt conveyor unloading/weigh hopper loading;
- vi. iron pellet conveyor drop (3 points), clamshell bin (oreyard) loading/unloading, vibrating feeder bin unloading/conveyor loading, and conveyor unloading/weigh hopper loading; and
- vii. BF burden bucket elevator loading/unloading.

**2.b** The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the submitted application, the permittee has committed to perform the following control measure(s) to ensure compliance:

Material Handling Operation(s)	Control Measure(s)
i. BOF slag rail car bottom dumping and associated bin unloading, belt conveyor loading, and weigh hopper loading	water suppression
ii. coke rail car bottom dumping and associated bin unloading, belt conveyor loading, and shaker/weigh hopper loading	water suppression
iii. dolomite rail car bottom dumping and associated bin unloading, belt conveyor loading and unloading, and weigh hopper loading	water suppression
iv. scrap rail car bottom dumping and associated bin unloading, belt conveyor loading and unloading, and weigh hopper loading	water suppression
v. sinter rail car bottom dumping and associated bin unloading, belt conveyor loading and unloading, and weigh hopper loading	water suppression
vi. iron pellet conveyor drop (3 points) and associated clamshell bin (oreyard) loading/unloading, vibrating feeder bin unloading, conveyor loading and unloading, and weigh hopper loading	water suppression
vii. BF burden bucket elevator loading/unloading	water suppression

**2.c** For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.

**II. Operational Restrictions**

1. The moisture content of the sinter loaded into the raw material feed bins building shall not be less than 1.5%, by weight.

### III. Monitoring and/or Record Keeping Requirements

1. The moisture content of the sinter loaded into the raw material feed bins building shall be determined by analysis of a grab sample of sinter taken on each day of railcar loading at a location anywhere at or between the railcar loading and unloading areas which provides an accurate representation of the moisture content of the sinter loaded into such building. Records shall be maintained to document compliance with the requirement in section A.II.1. These records shall be maintained by the permittee for a period of not less than 3 years.
2. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

Material Handling Operation(s)	Minimum Inspection Frequency
all	once per day while in use

The above-mentioned inspections shall be performed during representative, normal operating conditions.

3. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative approach to the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the applicable requirements. If the alternative approach is determined to be acceptable, the alternative approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
  - c. the dates the control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in section A.III.4.d shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency;
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented; and
  - c. each day in which the sinter moisture content was found to be less than 1.5%, by weight.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

### V. Testing Requirements

1. Compliance with the emission limitation and operational restriction in sections A.I.1 and A.II.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Operational Restriction:

The moisture content of the sinter loaded into the raw material feed bins building shall not be less than 1.5%, by weight

Applicable Compliance Method:

Compliance shall be demonstrated based upon the sampling procedures and record keeping requirements specified in section A.III.5.
  - 1.b Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the emission limitations for BOF slag, coke, dolomite, iron pellet, scrap, and sinter unloading, conveyors, handling operations, and transfer points identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

### VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF Material Handling (F005)  
**Activity Description:** BOF Material Handling (Lime, dolomitic lime, limestone, alloys, etc.)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
All BOF raw material handling including unloading, transferring, conveying (all vented to baghouse), and baghouse dust handling	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	use of reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.1.2.b)
	OAC rule 3745-17-08(B)(3)	Particulate emissions (PE) shall not exceed 0.030 gr/dscf from the baghouse.

**2. Additional Terms and Conditions**

- 2.a The material handling operations that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

- i. burnt lime truck and bottom-dump rail car unloading;
- ii. dolomite lime/chip bottom-dump rail car unloading;
- iii. scrap metal truck and railcar unloading and separating operations;
- iv. fluorspar truck unloading;
- v. flux and scrap conveying system including conveyors and transfer points;
- vi. flux receiving bins; and
- vii. baghouse dust handling operations.

- 2.b The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the submitted Title V permit application, the permittee shall perform the following control measure(s) to ensure compliance:

Material handling operations:

- i. burnt lime truck and bottom-dump rail car unloading;
- ii. dolomite lime/chip bottom dump rail car unloading;
- iii. scrap metal truck/railcar unloading/separating;
- iv. fluorspar truck unloading;
- v. flux conveying system/scrap transfer system including conveyors and two transfer points;
- vi. flux receiving bins; and
- vii. baghouse dust handling operations.

Control Measures (for each operation as numbered above):

- i. maintenance of enclosure and all windows, doors and openings in a manner to minimize or eliminate fugitive dust; use and maintenance of baghouse dust collector at all times of operation;
- ii. maintenance of enclosure and all windows, doors and openings in a manner to minimize or eliminate fugitive dust; use and maintenance of baghouse dust collector at all times of operation;
- iii. maintenance of enclosure around scrap unloading area and BOF shop;
- iv. maintenance of enclosure and all windows, doors and openings in a manner to minimize or eliminate fugitive dust; use and maintenance of baghouse dust collector at all times of operation;
- v. maintenance of enclosures around all transfer points and conveyors in a manner to minimize or eliminate fugitive dust; use and maintenance of baghouse dust collector at all times of operation; maintenance of belt scrapers to prevent material from falling from belts and becoming airborne;
- vi. maintenance of enclosure and all windows, doors and openings in a manner to minimize or eliminate fugitive dust; use and maintenance of baghouse dust collector at all times of operation; and
- vii. use of closed containers to store and transport baghouse dust; prompt clean-up of spilled baghouse dust; storage of baghouse dust in enclosed area.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**II. Operational Restrictions**

1. The permittee shall perform all scrap metal unloading and transfer within the BOF building and adjacent structure.
2. Flux unloading by truck and bottom-dump railcars shall be performed only within the enclosed unloading house with fugitive emissions of dust controlled by the baghouse. Flux shall not be unloaded or transferred at times when the baghouse is not operating.

## II. Operational Restrictions (continued)

3. All doors and windows and other openings in the truck/railcar unloading station shall be closed or otherwise covered in a manner that will prevent the emission of fugitive dust. The truck/railcar unloading station shall be controlled by the baghouse.
4. The permittee shall maintain the conveyor and transfer point enclosures at all times in a manner that will prevent the emission of fugitive dust. All conveyor transfer point enclosures shall be controlled by the baghouse.
5. The permittee shall maintain all belt scrapers in a manner that will remove all material from the return belts that would otherwise become airborne.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

## IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the above visible emission limitations shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.
  - 1.b Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance with the above visible emission limitations shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.
  - 1.c Emission Limitation:

PE shall not exceed 0.030 gr/dscf from the baghouse.

Applicable Compliance Method:

If required, compliance shall be demonstrated using Test Method 5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF Hot Metal Reladle (F009)  
**Activity Description:** South Reladle Pit-Controlled by a baghouse

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hot metal transfer operation from railcar to BOF charge ladle, with moveable hood and baghouse	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-13(F)(4)	Particulate emissions (PE) from the baghouse serving this emissions unit shall not exceed 5.5 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-08(B)	use of reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from this emissions unit (see sections A.I.2.a and A.I.2.b)

**2. Additional Terms and Conditions**

- 2.a RACM shall be the installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent, and control fugitive dust from the reladle station. The equipment shall have a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.  
  
The particulate mass emission limitation required by OAC rule 3745-17-08(B)(3)(b) is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-17-13(F)(4).
- 2.b The permittee shall maintain and operate the baghouse during all times of operation of the BOF hot metal reladle station.
- 2.c The area around the reladle station shall be thoroughly cleaned once a month to remove the accumulation of settled particulate matter which may become airborne.

**II. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1.
2. If there are no deviations during a calendar quarter that must be reported pursuant to the reporting requirements of this permit, the permittee shall submit a quarterly report, in accordance with section B.8 of the General Terms and Conditions of this permit, that states that no deviations occurred during that quarter.
3. The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Term and Condition A.1.c.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

#### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and (B)(1) of OAC rule 3745-17-03.
  - 1.b Emission Limitation:

Fugitive visible particulate emissions from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the above visible emission limitations shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.
  - 1.c Emission Limitation:

PE from the baghouse serving this emissions unit shall not exceed 5.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing procedures specified in section A.V.2.
2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months of permit issuance and within 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
  - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s).

#### VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Slab Caster (F010)  
**Activity Description:** Dual Strand Caster (including tundish heating, cutoff torches and slag dumping)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Slab Caster no 1. (slab casting, tundish preheater, slab cutoff torches)	OAC rule 3745-31-05(A)(3) (PTI 06-6226)	Emissions of nitrogen oxides (NOx) shall not exceed 20.8 lbs/hr and 73.8 tpy.  Particulate emissions with a diameter less than or equal to 10 microns (PM10) shall not exceed 1.67 lbs/hr and 5.9 tpy.
	OAC rule 3745-17-07(B)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1) and OAC rule 3745-17-08(B).  Visible particulate emissions of fugitive dust from slab casting, tundish preheater, slab cutoff torches, and building enclosure shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.1.2.a and A.1.2.b)
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a The permittee shall maintain and employ the slab caster, tundish preheater, and slab cut-off torches within a building enclosure that has been properly maintained in a manner that will minimize or eliminate visible emissions of fugitive dust.
- 2.b The permittee shall combust only natural gas in the tundish preheater and slab cut-off torches.
- 2.c All NOx emissions from this emissions unit are due to the combustion of natural gas and are fugitive in nature. Therefore, no monitoring, record keeping, or reporting requirements are necessary.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the location and color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative approach to the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. If the alternative approach is determined to be acceptable, the alternative approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)
3. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain daily records of the total natural gas usage in this emissions unit.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #06-06226, issued on 08/24/2000. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #06-06226, issued on 08/24/2000. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible particulate emissions of fugitive dust from slab casting, tundish preheater, slab cutoff torches, and building enclosure shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.
  - 1.b Emission Limitation:

Emissions of NO<sub>x</sub> shall not exceed 20.8 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NO<sub>x</sub> emission factor of 0.05 lb of NO<sub>x</sub> per ton of steel cast by the maximum quantity of steel cast of 416.7 tons/hr.

The NO<sub>x</sub> emission factor is derived from AIRS Facility Subsystem Source Classification Codes and Emission Factor listing for criteria air pollutants (March, 1990).
  - 1.c Emission Limitation:

Emissions of NO<sub>x</sub> shall not exceed 73.8 tpy.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NO<sub>x</sub> emission factor of 0.05 lb of NO<sub>x</sub> per ton produced by the maximum annual production of 2,950,000 tpy, and then dividing by 2000 lbs/ton.

The NO<sub>x</sub> emission factor is derived from AIRS Facility Subsystem Source Classification Codes and Emission Factor listing for criteria air pollutants (March, 1990).
  - 1.d Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 1.67 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the PM<sub>10</sub> emission factor of 0.004 lb of PM<sub>10</sub> per ton of steel cast by the maximum quantity of steel cast of 416.7 tons/hr.

The PM<sub>10</sub> emission factor was referenced in a Chester Environmental letter to WPS dated January 19, 1996.
  - 1.e Emission Limitation:

Emissions of PM<sub>10</sub> shall not exceed 5.9 tpy.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the PM<sub>10</sub> emission factor of 0.004 lb of PM<sub>10</sub> per ton produced by the maximum annual production of 2,950,000 tpy, and then dividing by 2000 lbs/ton.

The PM<sub>10</sub> emission factor was referenced in a Chester Environmental letter to WPS dated January 19, 1996.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #06-06226, issued on 08/24/2000. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

### VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Primary pellet unloading system (F014)  
**Activity Description:** Barge mounted hydraulic excavator with clam-shell bucket removing iron ore pellets to receiving hopper and conveyor system

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Primary high-flux iron bearing pellet unloading/handling system (unloading, conveyors, transfer points, and material handling)	OAC rule 3745-31-05(A)(3) (PTI 17-1630)	Particulate emissions (PE) shall not exceed 2.22 lbs/hr and 9.72 tpy.
	OAC rule 3745-17-07(B)(1)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1) and 3745-17-08(B).
	OAC rule 3745-17-08(B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. See A.I.2.b below.

**2. Additional Terms and Conditions**

- 2.a All material handling operations associated with the primary high-flux iron-bearing pellet barge unloading system are covered by this permit and are subject to the above-mentioned requirements. Material handling operations include loading/unloading, conveying, and conveyor transfer points.
- 2.b The permittee shall employ reasonably available/best available control measures for the following material handling operations for the purpose of ensuring compliance with all applicable requirements. The permittee shall utilize the following control measures to ensure compliance:

Material Handling Operations

- i. barge clam shell to barge bin;
- ii. barge bin to cleated conveyor;
- iii. cleated conveyor;
- iv. transfer point 2 (cleated conv. to horizontal conv.);
- v. horizontal conveyor;
- vi. transfer point 3 (horizontal conveyor to shuttle conveyor 1);
- vii. shuttle conveyor 1;
- viii. transfer point 4 (shuttle conveyor 1 to shuttle conveyor 2);
- ix. shuttle conveyor 2; and
- x. transfer point 5 (shuttle conveyor 2 to bins/piles).

Control Measures (for each of the above-mentioned numbered operations):

- i. minimize drop height, employ water and chemical dust suppressant;
- ii. employ water and chemical dust suppressant;
- iii. employ water and chemical dust suppressant;
- iv. employ partial enclosure, water, and chemical dust suppressant;
- v. employ water and chemical dust suppressant;
- vi. employ partial enclosure, water, and chemical dust suppressant;
- vii. employ water and chemical dust suppressant;
- viii. employ partial enclosure, water, and chemical dust suppressant;
- ix. employ water and chemical dust suppressant; and
- x. minimize drop height, employ water and chemical dust suppressant.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with all applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measures is unnecessary.
- 2.d Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.

**II. Operational Restrictions**

1. Per PTI 17-1630 and to comply with mass emission limitations, the permittee shall unload no more than 4,380,000 tons of pellets per rolling, 12-month period with this emissions unit.

**III. Monitoring and/or Record Keeping Requirements**

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of each of the material handling operations (as listed in section A.I.2.b) on a daily basis. These inspections shall be performed during representative, normal operating conditions.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain records containing the following information:
  - a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
  - c. the dates the control measure(s) was (were) implemented; and
  - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in section A.III.3.d shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days of the end of each calendar quarter.

3. The permittee shall keep monthly records of the number of tons of pellets unloaded during the month and during each rolling, 12-month period.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-1630, issued on 04/14/1999. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency;
  - b. each instance when a control measure that was to be performed as a result of an inspection was not implemented;
  - c. each exceedance of the pellet unloading limitation of 4,380,000 tons, as a rolling, 12-month summation.
2. The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Term and Condition A.I.1 of this permit.
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-1630, issued on 04/14/1999. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

#### 1.a Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation for the material handling operations identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

#### 1.b Emission Limitation:

PE shall not exceed 2.22 lbs/hr.

Applicable Compliance Method:

Compliance shall be based upon a maximum operating rate of 500 tons/hr and 4,380,000 tons per rolling, 12-month period, with the use of dust control measures.

In accordance with AP-42 (13.2.4-3, 01/95), the emission limitation is calculated using the following equation:

$$E = (K) (0.0032) ((U/5)^{1.3} / (M/2)^{1.4}) \text{ lb of PE/ton}$$

where:

K = 0.35

U = 6.19 mph mean wind speed

M = the assumed 2.0% moisture content of the pellets

$$E = (.35) (0.0032) (1.31989/1) = 0.00148 \text{ lb of PE/ton}$$

At 500 tons/hr:

$$(500 \text{ tons/hr}) (0.00148 \text{ lb PE/ton}) (3 \text{ transfer points}) = 2.22 \text{ lbs/hr of PE.}$$

#### 1.c Emission Limitation:

PE shall not exceed 9.72 tpy.

Applicable Compliance Method:

The limit is based on the AP-42 (13.2.4-3, 01/95) factor developed in A.V.1.b above and a maximum 500 tons/hr throughput. The annual limit is based on this maximum throughput and 8760 hours of operations per year. Compliance is assumed if the hourly limit is met.

2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-1630, issued on 04/14/1999. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

### VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Roads (F101)  
**Activity Description:** Paved and unpaved roads and parking lots

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
North paved and unpaved roadways and parking areas (see sections A.I.2.a and A.I.2.b below)	OAC rule 3745-17-13(E)(3)	<p>The permittee shall comply with the "Work Practice Plan in Appendix A" of this rule for the control of fugitive dust.</p> <p>Total combined emissions of PM10 from unpaved roads, parking lots, laydown, entrance, unloading areas and berms, irregular paved surfaces, and paved roads, which are located at the Steubenville facility and are identified in sections B and C of OAC rule 3745-17-13, Appendix A, shall not exceed 1.35 pounds per hour.</p>

**2. Additional Terms and Conditions**

- 2.a The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rule 3745-17-13 are listed below:

Paved roadways:

- A - Entrance road;
- B - Cold strip mill road;
- C - Cold strip mill entrance road; and
- D - Plant center road-wide berms at indicated places.

Paved parking areas:

none

- 2.b The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rule 3745-17-13 are listed below:

Unpaved roadways:

- D - Plant center road-wide berms at indicated places;
- E - Small unpaved roads from center road;
- H - Open hearth-hot strip mill road; and
- J - Strip mill road-two 15' lanes.

Unpaved parking areas:

- F - West parking lot; and
- G - East parking lot.

- 2.c The permittee shall employ dust control measures on all unpaved surfaces, and irregular paved surfaces that cannot be adequately cleaned under the provisions of Section C of OAC rule 3745-17-13, Appendix A, identified in section A.I.2.b and in accordance with the following:

- i. All unpaved surfaces and irregular paved surfaces identified in Attachment 1 of OAC rule 3745-17-13, Appendix A (map) shall be treated in accordance with the schedule in Attachment 1, following the initial establishment of chemical ground inventory, with a chemical dust suppressant (petroleum resin emulsions, asphalt emulsions, or acrylic cements) on a year-round (12-month) basis, except as provided under sections A.2.c.v, A.2.c.vi, and A.VI. The dust suppressant application intensity and frequency during the first two months of this program shall be sufficient to achieve the ground inventory specified in section A.2.c.iv by the end of the 2-month period.

- ii. Tri-weekly, monthly and quarterly applications shall be accomplished before the end of the first full week of the tri-week/month/quarter except as provided under sections A.2.c.v, A.2.c.vi, and A.VI.

## 2. Additional Terms and Conditions (continued)

iii. For each dust suppressant application during the initial 2-month period of the dust control program, the concentrated dust suppressant shall be diluted at a ratio of not more than five (5) parts water to one (1) part concentrate and the resulting solution shall be applied at a minimum rate of 1.0 gallon per square yard of unpaved or irregular paved surface. The dust suppressant shall be applied at sufficient intervals and intensities after the initial two-month period as to maintain the ground inventory. Except as provided in sections A.2.c.vi and A.VI, the continuing program shall provide for the application of dust suppressant specified in Attachment 1 diluted by no more than seven (7) parts water to one part chemical and applied at a rate of not less than 0.5 gallon per square yard of unpaved or irregular paved surface.

iv. A minimum ground inventory of 0.25 gallon of concentrate per square yard of road surface, as specified in Section 3.0 of the USEPA reference document Control of Open Fugitive Dust Sources (EPA-450/3-88-008) shall be maintained.

v. Applications of dust suppressant may be delayed by not more than three (3) days for any scheduled date upon which the unpaved or irregular paved surface is snow and/or ice covered or has experienced > 0.25 inch of rainfall.

In the event of persistent adverse weather conditions such as snow and/or ice cover or excessive rainfall, the Company may petition the Director or his representative verbally with written confirmation within three (3) days for extended exemptions which may be granted as deemed appropriate by the Director or his representative.

vi. Applications of chemical dust suppressant for the second year (after establishment of the ground inventory specified in section A.I.2.c.iv) and beyond may follow the revised schedule, application intensities, and application concentrations shown in Table 11 of OAC rule 3745-17-13, Appendix A, Attachment 1.

**2.d** All paved roads identified in Attachment 1 of OAC rule 3745-17-13, Appendix A (map) shall be cleaned via vacuum sweeping on a daily, year-round (12-month) basis except as provided below:

i. Daily sweeping may be suspended only when there is snow, ice cover, or standing water on the surface. All such suspensions shall be reported and verified as required under sections A.III.2, A.IV.4, A.IV.5, and A.IV.6 (Record keeping and Reporting).

ii. Irregular paved surfaces that cannot feasibly or adequately be cleaned by vacuum sweeping shall be chemically sprayed in accordance with provisions of section A.I.2.c.

**2.e** The permittee shall ensure the availability, required scheduling, and proper maintenance of vacuum sweeping trucks. The collection hopper of the vacuum truck shall be designed and maintained so as to prevent fugitive dust emissions.

**2.f** Material collected by the vacuum sweeping truck shall be handled and disposed of in a manner that minimizes fugitive dust emissions, including but not limited to, wet dumping and chemical treatment or stabilization of stored material.

**2.g** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

**2.h** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times.

**2.i** The permittee shall ensure the availability, required scheduling, and proper maintenance of spray trucks that are designed and equipped, at minimum, with a 2,000-gallon capacity tank, a spray bar system capable of applying the dust suppressant solution at a coverage rate of at least 1.3 gallons per square yard of surface, a certified flow metering device calibrated in units of gallons per minute, and an apparatus that will facilitate manual applications of the solution to areas not readily accessible by the spray truck.

## II. Operational Restrictions

None

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain records relative to the program to control emissions from unpaved roads, parking lots, laydown, entrance, unloading areas and berms, and irregular paved surfaces identified in Attachment 1. These records shall include, at a minimum, the following information:

- control equipment maintenance records;
- scheduled and unscheduled equipment malfunctions and downtime;
- meteorological log to include average daily temperature, daily precipitation and unusual meteorological occurrences;
- the date, type and quantity received for each delivery of chemical dust suppressant;
- for each dust suppressant application date, and for each unpaved road, area, or berm, or irregular paved surface identified in Attachment 1, start and stop times, average truck speed, number of passes, amount of solution applied, and the dilution ratio of the solution; and
- identification of areas where manual spraying was utilized.

These records shall be retained by the permittee for five (5) years and shall be made available to the Director or his representative upon request.

2. The permittee shall maintain daily records for the paved road cleaning program. These records shall include, at a minimum, the following information:

- control equipment maintenance records;
- scheduled and unscheduled equipment malfunctions and downtime;
- meteorological log to include average daily temperature, daily precipitation and unusual meteorological occurrence;
- qualitative description of the road surface conditions;
- start and stop time, average truck speed, number of passes for each paved road identified in Attachment 1;
- identification of areas where chemical treatment was utilized;
- qualitative descriptions of areas of unusually high silt loadings from spills and track-ons; and
- total amount of dust collected by vacuum trucks in pounds or tons.

These records shall be retained by the permittee for five (5) years and shall be made available to the Director or his representative upon request.

#### IV. Reporting Requirements

1. A calendar quarterly report shall be submitted to the Director or his representative. The report shall contain all information cited in section A.III.1, above and a description of any deviations from the control program and the reasons for such deviations. The report shall be certified to be accurate by management and shall be submitted within fifteen (15) days after the end of the quarter.
2. The permittee shall notify the Director or his representative, in writing, of any noncompliance with section B of OAC rule 3745-17-13, Appendix A. Such notice shall be submitted within five (5) days of the noncompliance occurrence and shall include a detailed explanation of the cause of such noncompliance, all remedial actions required, and the date by which compliance was or will be reestablished.
3. The permittee shall submit to the Director or his representative an annual report which demonstrates compliance with the PM10 emission rates specified in sections A.1 and A.2 of OAC rule 3745-17-13, Appendix A for the unpaved surfaces, and the irregular paved surfaces that cannot be adequately cleaned under the provisions of section B OAC rule 3745-17-13, Appendix A, at the Mingo Junction and Steubenville facilities. The PM10 emission rate for each individual network segment identified in Attachment 1 shall be reported along with the total PM10 emission rate for each facility. The PM10 emission rates shall be calculated using the methodology specified in section V.1 and shall reflect the road network as it exists at the end of each calendar year. Each annual report shall be submitted by no later than January 31 of the succeeding year.
4. A calendar quarterly report shall be submitted to the Director or his representative. The report shall contain all of the information contained in section A.III.2 above and a description of any deviation from the control program and the reasons for such deviation. The report shall be certified to be accurate by company management and shall be submitted within fifteen (15) days after the end of the quarter.
5. The permittee shall notify the Director or his representative, in writing, of any noncompliance with section C of OAC rule 3745-17-13, Appendix A. Such notice shall be submitted within five (5) days of the noncompliance occurrence and shall include a detailed explanation of the cause of such noncompliance, all remedial actions required and the date by which compliance was or will be reestablished.
6. The permittee shall submit to the Director or his representative an annual report which demonstrates compliance with the PM10 emission rates specified in sections A.1 and A.2 of OAC rule 3745-17-13, Appendix A for the paved roads (excluding irregular paved surfaces that cannot be adequately cleaned under the provisions of section C) at the Steubenville South (Mingo Junction) and Steubenville North facilities. The PM10 emission rate for each individual network segment identified in Attachment 1 shall be reported along with the total PM10 emission rate for each facility. The PM10 emission rates shall be calculated using the methodology specified in section V.1 of this permit and shall reflect the road network as it exists at the end of each calendar year. Each annual report shall be submitted by no later than January 31 of the succeeding year.

#### V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:
  - 1.a Emission Limitation:  
  
1.35 lbs/hr of PM10  
  
Applicable Compliance Method:  
  
Compliance shall be determined by the methodology set forth in the U.S. Environmental Protection Agency reference document "Control of Open Fugitive Dust Sources" (EPA-450/3-88-008), sections 2.0 and 3.0, and using the dust control plans identified in sections B and C of OAC rule 3745-17-13, Appendix A.

#### VI. Miscellaneous Requirements

1. The permittee has the right to petition the Ohio EPA for written approval of definitive treatment methods, treatment schedules and procedures or reporting requirements different from those required herein. No action shall be taken by the permittee in employing the alternative practices until the Director or his representative issues a written approval to the permittee. Such alternative practices must be demonstrated to the Director or his representative to result in equivalent dust control effectiveness in accordance with "Control of Open Fugitive Dust Sources" (EPA -450/3-88-008). The permittee reserves the right to contest any disapproval of such petition in the appropriate judicial forum.
2. In the event that the permittee certifies that all of a roadway or parking area identified in sections A.I.2.a and/or A.I.2.b of this permit has been discontinued, the dust suppression or surface cleaning program for that road or parking lot may be terminated or reduced. If the permittee begins to utilize any new roadway, parking lot or other vehicular activity area not shown in sections A.I.2.a and/or A.I.2.b, it shall notify the Director or his representative in the reports required under this permit and treat or clean the road or area in accordance with the procedures obtained herein, unless more stringent requirements are specified in any permit to install issued by the Ohio EPA for such roadway or area.
3. The Director or his representative shall not be precluded from requiring adjustments, including increased chemical suppressant application or cleaning, if on-site inspections reveal that the program contained herein does not prevent excessive visible dust entrainment and emission from a particular road or area.
4. In the event that an unpaved road or area that has been chemically treated becomes completely hardened and cemented by such treatment so as to become like a paved road as demonstrated by observation, by compaction tests and silt analyses, or in the event that the permittee paves any unpaved haul road or area, that road or area may be treated as a paved surface and cleaned in accordance with the procedures outlined in sections A.I.2.c through A.I.2.e of this permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North BF Storage Piles (F103)  
**Activity Description:** BF Storage Piles (Ore yard and bins)Storage Piles

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Load-in and load-out of Blast Furnace #1 storage piles and bins (see section A.I.2.a for identification of storage piles and bins) and storage pile wind erosion	OAC rule 3745-17-07(B)(6)	no visible particulate emissions from any material storage pile except for a period of time not to exceed 13 minutes during any 60-minute observation period
	OAC rule 3745-17-08(B), (B)(6)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.b through A.I.2.f)

**2. Additional Terms and Conditions**

- 2.a The blast furnace #1 storage piles and bins that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:
  - i. BOF slag storage piles;
  - ii. Coke storage piles;
  - iii. Dolomite storage piles;
  - iv. Iron pellet storage piles;
  - v. Scrap storage piles; and
  - vi. Sinter storage piles.

All storage piles for blast furnace #1 include the ore yard and the storage bins under the trestle south of the furnace.
- 2.b The permittee shall employ reasonably available control measures on all BOF slag, coke, dolomite, iron pellet, scrap and sinter storage piles, bins, and load-in/load-out operations associated with blast furnace #1 for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the accepted permit application, the permittee has committed to treat the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile operations with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance at all times. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c The above-mentioned control measures shall be employed for each of the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage piles and bins for blast furnace #1 if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during any such operation until further observation confirms that use of the measures is unnecessary.
- 2.d The permittee shall employ reasonably available control measures for wind erosion from pile surfaces associated with the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage piles and bins for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the accepted permit application, the permittee has committed to treat the storage piles and bins with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies, maintain adequate enclosures, and utilize materials of sufficient size and density to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e The above-mentioned control measures shall be employed for all storage piles and bins in order to minimize or eliminate emissions due to wind erosion if the permittee determines, as a result of the inspections conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measures shall not be necessary for a blast furnace storage pile and bin that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- 2.f Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. Except as otherwise provided in this section, the permittee shall perform inspections of each BOF slag, coke, dolomite, iron pellet, scrap and sinter load-in operation at each storage pile and bin in accordance with the following frequencies:
 

Storage pile identification: BOF slag, coke, dolomite, iron pellets, scrap, and sinter storage piles and bins.

Minimum load-in inspection frequency: daily.

### III. Monitoring and/or Record Keeping Requirements (continued)

2. Except as otherwise provided in this section, the permittee shall perform inspections of each BOF slag, coke, dolomite, iron pellets, scrap, and sinter load-out operation at each storage pile and bin in accordance with the following frequencies:

Storage pile identification: BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage piles and bins.

Minimum load-out inspection frequency: daily.

3. Except as otherwise provided in this section, the permittee shall perform inspections for wind erosion from BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile and bin surface in accordance with the following frequencies:

Storage pile identification: BOF slag, coke, dolomite, iron pellet, scrap and sinter piles and bins.

Minimum wind erosion inspection frequency: daily.

4. No inspection shall be necessary for wind erosion from the surface of a pile or bin when the pile or bin is covered with snow and/or ice and for any storage pile or bin activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one day.
5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for BOF slag, coke, dolomite, iron pellet, scrap, and sinter load-in or load-out of a storage pile and/or bin and wind erosion from the surfaces of these storage piles and bins. The inspections shall be performed during representative, normal storage pile and bin operating conditions.
6. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative approach to the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the applicable requirements. If the alternative approach is determined to be acceptable, the alternative approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)
7. The permittee shall maintain records of the following information:
- the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - the dates the control measures were implemented; and
  - on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in section A.III.7.d shall be kept separately for (i) the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile and bin load-in operations, (ii) the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile and bin load-out operations, (iii) the BOF slag, coke, dolomite, iron pellet, scrap, and sinter storage pile and bin wind erosion, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

### IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
- each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Term and Condition A.1.c of this permit.
3. If there are no deviations during a calendar quarter that must be reported pursuant to the reporting requirements of this permit, the permittee shall submit a quarterly report, in accordance with section B.6 of the General Terms and Conditions of this permit, which states that no deviations occurred during that quarter.

### V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

no visible particulate emissions from any material storage pile except for a period of time not to exceed 13 minutes during any 60-minute observation period

Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

### VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North BF Mat. Handling (F104)  
**Activity Description:** BF Material Handling (Lime, ore, coke, etc.)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Blast Furnace no. 1 material handling operations (see section A.1.2.a)	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	use of reasonably available control measures that are sufficient to minimize or eliminate visible particulate emissions of fugitive dust (see sections A.1.2.b through A.1.2.c)
	OAC rule 3745-17-13(E)(4)(a)	The moisture content of the sinter loaded into the raw material feed bins building shall be not less than 1.5%, by weight.

**2. Additional Terms and Conditions**

**2.a** The operations covered under this permit (F104) are as follows:

- i. BOF slag rail car bottom dumping, bin unloading/belt conveyor loading, weigh hopper loading;
- ii. coke rail car bottom dumping, bin unloading/belt conveyor loading, weigh hopper loading;
- iii. dolomite rail car bottom dumping, bin unloading/belt conveyor loading, weigh hopper loading;
- iv. scrap rail car bottom dumping, bin unloading/belt conveyor loading, weigh hopper loading;
- v. sinter rail car bottom dumping, bin unloading/belt conveyor loading, weigh hopper loading;
- vi. iron pellet rail car bottom dumping, bin unloading/belt conveyor loading, clamshell bin loading, and weigh hopper loading; and
- vii. BF burden bucket elevator (skip car) loading/unloading.

**2.b** The permittee shall employ reasonably available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

Material Handling Operation(s)	Control Measure(s)
i. BOF slag, coke, dolomite, scrap, sinter, and iron pellet rail car bottom dumping	water suppression
ii. BOF slag, coke, dolomite, scrap, sinter, and iron pellet bin unloading/belt conveyor loading, weigh hopper loading	total enclosure
iii. iron pellet clamshell bin loading	water suppression
iv. BF burden bucket elevator (skip car) loading/unloading	total enclosure

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.

**II. Operational Restrictions**

1. The moisture content of the sinter loaded into the raw material feed bins building shall be not less than 1.5%, by weight.

**III. Monitoring and/or Record Keeping Requirements**

1. The moisture content of the sinter loaded into the raw material feed bins building shall be determined by analysis of a grab sample of sinter taken on each day of railcar loading. Samples shall be taken at a location anywhere at or between the railcar loading and unloading areas which provides an accurate representation of the moisture content of the sinter loaded into such building. The moisture content shall be determined by ASTM Standard D2216, as described in OAC rule 3745-17-03(B)(11).

Records shall be maintained to document compliance with the requirement in section A.II.1. These records shall be maintained by the permittee for a period of not less than 3 years.

**III. Monitoring and/or Record Keeping Requirements (continued)**

2. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

material handling operation(s)	minimum inspection frequency
all	once per day while in use

The above-mentioned inspections shall be performed during representative, normal operating conditions.

3. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative approach to the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the applicable requirements. If the alternative approach is determined to be acceptable, the alternative approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)
4. The permittee shall maintain records of the following information:
- the date and reason any required inspection was not performed;
  - the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
  - the dates the control measure(s) was (were) implemented; and
  - on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in section A.III.4.d shall be kept separately for each material handling operation identified in section A.I.2.a, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

**IV. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:
- each day during which an inspection was not performed by the required frequency; and
  - each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the moisture content of the sinter loaded into the raw material feed bins building was less than 1.5%, by weight, and the actual moisture content of the sinter for each such day.
3. The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Term and Condition A.1.c of this permit.

**V. Testing Requirements**

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:
- 1.a Operational Restriction:
- The moisture content of the sinter loaded into the raw material feed bins building shall not be less than 1.5%, by weight.
- Applicable Compliance Method:
- Compliance shall be demonstrated based on the procedures and record keeping specified in section A.III.5.
- 1.b Emission Limitation:
- Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
- Applicable Compliance Method:
- Compliance with the visible emission limitations for BOF slag, coke, dolomite, iron pellet, scrap, and sinter unloading, conveyors, handling operations, and transfer points identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** 80" HSM Reheat 2 (P006)  
**Activity Description:** Surface Combustion - 5 Zone Pusher Type

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
80" hot strip mill reheat furnace #2 - natural gas, coke oven gas, no. 2 fuel oil-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-47(C)	The hydrogen sulfide (H <sub>2</sub> S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H <sub>2</sub> S per 100 dscf of COG.
	OAC rule 3745-17-13(F)(5)	Particulate emissions (PE) shall not exceed 6.0 lbs/hr.
	OAC rule 3745-18-06(E)(2)	For all fuels, sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 1213 lbs/hr (see section A.I.2.b).

**2. Additional Terms and Conditions**

- 2.a** The emission limitation required by OAC rule 3745-17-11(B)(1) is less stringent than the emission limitation established by OAC rule 3745-17-13(F)(5).
- 2.b** The allowable hourly SO<sub>2</sub> emission limitation is calculated per OAC rule 3745-18-06(E)(2) by the following equation:

$$AER = 30 \times (P)^{0.67}$$

Per historical permit application/production data, P = 250 tons/hr.

$$AER = 1213 \text{ lbs/hr of SO}_2$$

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, number 2 fuel oil, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. Refer to Part II - Specific Facility Terms and Conditions A.1 and A.2.
3. The permittee shall record the separate monthly volumes of natural gas, coke oven gas, and no. 2 fuel oil consumed by this emissions unit.
4. For each day during which the permittee burns a fuel other than natural gas, coke oven gas, or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot); and
  - d. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
6. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot); and
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in c is greater than 950 Btu/cu ft and the average sulfur content collected in b, above, is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
7. The permittee shall collect representative samples of #2 fuel oil for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (gallons) of #2 fuel oil burned;
  - b. the decimal fraction of sulfur in the #2 fuel oil sample;
  - c. the average heat content of the #2 fuel oil sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per gallon); and
  - d. the hourly SO<sub>2</sub> emission rate from the #2 fuel oil, in lb SO<sub>2</sub>/hr.
8. The permittee shall calculate and record the total SO<sub>2</sub> emission rate, in lb SO<sub>2</sub>/hr, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.5.e, A.III.6.e, and A.III.7.e).
9. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative approach to the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. If the alternative approach is determined to be acceptable, the alternative approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, desulfurized coke oven gas, or no. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit semiannual written reports that identify each day that COG with a H<sub>2</sub>S content greater than 50 grains of H<sub>2</sub>S per 100 dscf of COG was combusted.
4. The permittee shall submit quarterly deviation (excursion) reports that identify each exceedance of the SO<sub>2</sub> emission limitation of 1213 lbs/hr specified in section A.I.1.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitation:

PE shall not exceed 6.0 lbs/hr.

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit (million cf/hr) by the AP-42 (Table 1.4-2, July, 1998) emission factor for natural gas combustion (1.9 lbs/million cf).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (million Btu/hr) by the AP-42 emission factor (Table 12.5-1, October, 1986) for coke oven gas (0.012 lb/million Btu).

When burning only #2 fuel oil, compliance may be determined by multiplying the maximum hourly fuel burning capacity of the emissions unit (gallons/hr) by the AP-42 emission factor (Table 1.3-1, September, 1998) for #2 fuel oil (2 lbs/1000 gallons).

When burning a combination of natural gas, coke oven gas, and/or no. 2 fuel oil, compliance may be determined by multiplying the actual hourly fuel rate usage of each individual fuel in use by the respective AP-42 emission factor for each gas (see above) burned in combination.

If required, the permittee shall demonstrate compliance based upon the stack testing methods and procedures specified in section A.V.2.

### 1.c Emission Limitation:

The H<sub>2</sub>S content of the COG combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, sections A.1 and A.2 and the record keeping requirement specified in section A.III.5.

### 1.d Emission Limitation:

For all fuels, SO<sub>2</sub> emissions shall not exceed 1213 lbs/hr.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirement specified in section A.III.8.

If required, the permittee shall demonstrate compliance based upon the stack testing methods and procedures specified in section A.V.2.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. Emissions tests shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub> while burning each of the allowable fuels at maximum firing rate. Alternately, the permittee may provide documentation which specifies the "worst case" scenario for fuel mixtures for particulates and SO<sub>2</sub>.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** 80" HSM Reheat 3 (P007)  
**Activity Description:** Surface Combustion - 5 Zone Pusher Type

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
80" hot strip mill reheat furnace #3 - natural gas, coke oven gas, no. 2 fuel oil-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-47(C)	The hydrogen sulfide (H <sub>2</sub> S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H <sub>2</sub> S per 100 dscf of COG.
	OAC rule 3745-17-13(F)(5)	Particulate emissions (PE) shall not exceed 6.0 lbs/hr.
	OAC rule 3745-18-06(E)(2)	For all fuels, sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 1213 lbs/hr (see section A.I.2.b).

**2. Additional Terms and Conditions**

- 2.a** The emission limitation required by OAC rule 3745-17-11(B)(1) is less stringent than the emission limitation established by OAC rule 3745-17-13(F)(5).
- 2.b** The allowable hourly SO<sub>2</sub> emission limitation is calculated per OAC rule 3745-18-06(E)(2) by the following equation:

$$AER = 30 \times (P)^{0.67}$$

Per historical permit application/production data, P = 250 tons/hr.

$$AER = 1213 \text{ lbs/hr of SO}_2$$

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, number 2 fuel oil, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. Refer to Part II - Specific Facility Terms and Conditions A.1 and A.2.
3. The permittee shall record the separate monthly volumes of natural gas, coke oven gas, and no. 2 fuel oil consumed by this emissions unit.
4. For each day during which the permittee burns a fuel other than natural gas, coke oven gas, or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot); and
  - d. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
6. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot); and
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in c is greater than 950 Btu/cu ft and the average sulfur content collected in b, above, is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
7. The permittee shall collect representative samples of #2 fuel oil for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (gallons) of #2 fuel oil burned;
  - b. the decimal fraction of sulfur in the #2 fuel oil sample;
  - c. the average heat content of the #2 fuel oil sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per gallon); and
  - d. the hourly SO<sub>2</sub> emission rate from the #2 fuel oil, in lb SO<sub>2</sub>/hr.
8. The permittee shall calculate and record the total SO<sub>2</sub> emission rate, in lb SO<sub>2</sub>/hr, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.5.e, A.III.6.e, and A.III.7.e).
9. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative approach to the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. If the alternative approach is determined to be acceptable, the alternative approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, desulfurized coke oven gas, or no. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit semiannual written reports that identify each day that COG with a H<sub>2</sub>S content greater than 50 grains of H<sub>2</sub>S per 100 dscf of COG was combusted.
4. The permittee shall submit quarterly deviation (excursion) reports that identify each exceedance of the SO<sub>2</sub> emission limitation of 1213 lbs/hr specified in section A.I.1.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitation:

PE shall not exceed 6.0 lbs/hr.

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit (million cf/hr) by the AP-42 (Table 1.4-2, July, 1998) emission factor for natural gas combustion (1.9 lbs/million cf).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (million Btu/hr) by the AP-42 emission factor (Table 12.5-1, October, 1986) for coke oven gas (0.012 lb/million Btu).

When burning only #2 fuel oil, compliance may be determined by multiplying the maximum hourly fuel burning capacity of the emissions unit (gallons/hr) by the AP-42 emission factor (Table 1.3-1, September, 1998) for #2 fuel oil (2 lbs/1000 gallons).

When burning a combination of natural gas, coke oven gas, and/or no. 2 fuel oil, compliance may be determined by multiplying the actual hourly fuel rate usage of each individual fuel in use by the respective AP-42 emission factor for each gas (see above) burned in combination.

If required, the permittee shall demonstrate compliance based upon the stack testing methods and procedures specified in section A.V.2.

### 1.c Emission Limitation:

The H<sub>2</sub>S content of the COG combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, sections A.1 and A.2 and the record keeping requirement specified in section A.III.5.

### 1.d Emission Limitation:

For all fuels, SO<sub>2</sub> emissions shall not exceed 1213 lbs/hr.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirement specified in section A.III.8.

If required, the permittee shall demonstrate compliance based upon the stack testing methods and procedures specified in section A.V.2.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. Emissions tests shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub> while burning each of the allowable fuels at maximum firing rate. Alternately, the permittee may provide documentation which specifies the "worst case" scenario for fuel mixtures for particulates and SO<sub>2</sub>.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** 80" HSM Reheat 4 (P008)  
**Activity Description:** Surface Combustion - 5 Zone Pusher Type

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
80" hot strip mill reheat furnace #4 - natural gas, coke oven gas, no. 2 fuel oil-fired	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-47(C)	The hydrogen sulfide (H <sub>2</sub> S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H <sub>2</sub> S per 100 dscf of COG.
	OAC rule 3745-17-13(F)(5)	Particulate emissions (PE) shall not exceed 6.0 lbs/hr.
	OAC rule 3745-18-06(E)(2)	For all fuels, sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 1213 lbs/hr (see section A.I.2.b).

**2. Additional Terms and Conditions**

- 2.a** The emission limitation required by OAC rule 3745-17-11(B)(1) is less stringent than the emission limitation established by OAC rule 3745-17-13(F)(5).
- 2.b** The allowable hourly SO<sub>2</sub> emission limitation is calculated per OAC rule 3745-18-06(E)(2) by the following equation:

$$AER = 30 \times (P)^{0.67}$$

Per historical permit application/production data, P = 250 tons/hr.

$$AER = 1213 \text{ lbs/hr of SO}_2$$

**II. Operational Restrictions**

1. The permittee shall burn only natural gas, desulfurized coke oven gas, number 2 fuel oil, or a combination of these fuels in this emissions unit. No other fuel shall be burned in this emissions unit unless appropriate permits are obtained.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. Refer to Part II - Specific Facility Terms and Conditions A.1 and A.2.
3. The permittee shall record the separate monthly volumes of natural gas, coke oven gas, and no. 2 fuel oil consumed by this emissions unit.
4. For each day during which the permittee burns a fuel other than natural gas, coke oven gas, or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall collect representative samples of COG for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of COG burned;
  - b. the decimal fraction of sulfur in the COG sample (the permittee shall utilize data collected from the CEM for H<sub>2</sub>S content of the COG, as required in Part II, section A.3);
  - c. the average heat content of the COG sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot); and
  - d. the hourly SO<sub>2</sub> emission rate from the COG, in lb SO<sub>2</sub>/hr.
6. The permittee shall collect representative samples of natural gas for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (cubic feet) of natural gas burned;
  - b. the decimal fraction of sulfur in the natural gas sample;
  - c. the average heat content of the natural gas sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per cubic foot); and
  - d. the hourly SO<sub>2</sub> emission rate from the natural gas, in lb SO<sub>2</sub>/hr.

(If the heat content collected in c is greater than 950 Btu/cu ft and the average sulfur content collected in b, above, is less than 0.6 lb S/million cu ft, then the SO<sub>2</sub> emission rate shall be considered to be 0.0 lb SO<sub>2</sub>/million Btu, per OAC rule 3745-18-04(F)(4), but not 0.0 lb SO<sub>2</sub>/hr.)
7. The permittee shall collect representative samples of #2 fuel oil for analysis for sulfur content and heat content. At a minimum the samples shall be collected on an hourly basis. Based on the samples collected and analyzed, the following information shall be recorded:
  - a. the hourly volume (gallons) of #2 fuel oil burned;
  - b. the decimal fraction of sulfur in the #2 fuel oil sample;
  - c. the average heat content of the #2 fuel oil sample (the heat content shall be determined by use of a continuous calorimeter and shall be expressed in Btu per gallon); and
  - d. the hourly SO<sub>2</sub> emission rate from the #2 fuel oil, in lb SO<sub>2</sub>/hr.
8. The permittee shall calculate and record the total SO<sub>2</sub> emission rate, in lb SO<sub>2</sub>/hr, for all fuels burned in this emissions unit by adding the emission rates for all gases (A.III.5.e, A.III.6.e, and A.III.7.e).
9. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative approach to the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements. If the alternative approach is determined to be acceptable, the alternative approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)

### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, desulfurized coke oven gas, or no. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit semiannual written reports that identify each day that COG with a H<sub>2</sub>S content greater than 50 grains of H<sub>2</sub>S per 100 dscf of COG was combusted.
4. The permittee shall submit quarterly deviation (excursion) reports that identify each exceedance of the SO<sub>2</sub> emission limitation of 1213 lbs/hr specified in section A.I.1.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

### 1.b Emission Limitation:

PE shall not exceed 6.0 lbs/hr.

Applicable Compliance Method:

When burning only natural gas, compliance may be determined by multiplying the maximum gas burning capacity of the emissions unit (million cf/hr) by the AP-42 (Table 1.4-2, July, 1998) emission factor for natural gas combustion (1.9 lbs/million cf).

When burning only coke oven gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (million Btu/hr) by the AP-42 emission factor (Table 12.5-1, October, 1986) for coke oven gas (0.012 lb/million Btu).

When burning only #2 fuel oil, compliance may be determined by multiplying the maximum hourly fuel burning capacity of the emissions unit (gallons/hr) by the AP-42 emission factor (Table 1.3-1, September, 1998) for #2 fuel oil (2 lbs/1000 gallons).

When burning a combination of natural gas, coke oven gas, and/or no. 2 fuel oil, compliance may be determined by multiplying the actual hourly fuel rate usage of each individual fuel in use by the respective AP-42 emission factor for each gas (see above) burned in combination.

If required, the permittee shall demonstrate compliance based upon the stack testing methods and procedures specified in section A.V.2.

### 1.c Emission Limitation:

The H<sub>2</sub>S content of the COG combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring requirements specified in Part II, sections A.1 and A.2 and the record keeping requirement specified in section A.III.5.

### 1.d Emission Limitation:

For all fuels, SO<sub>2</sub> emissions shall not exceed 1213 lbs/hr.

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirement specified in section A.III.8.

If required, the permittee shall demonstrate compliance based upon the stack testing methods and procedures specified in section A.V.2.

## 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. Emissions tests shall be conducted between 12 months and 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and SO<sub>2</sub> while burning each of the allowable fuels at maximum firing rate. Alternately, the permittee may provide documentation which specifies the "worst case" scenario for fuel mixtures for particulates and SO<sub>2</sub>.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for SO<sub>2</sub>, Methods 1 through 4 and Method 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF Ladle Reheat and Ladle Trim Station (P009)  
**Activity Description:** Alternate refining station - most through CAS-OB beginning 8/95.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Ladle reheat and trim station, equipped with a baghouse	OAC rule 3745-31-05(A)(3) (PTI 17-766)	Particulate emissions (PE) shall not exceed 0.020 gr/dscf. PE shall not exceed 2.3 lbs/hr.
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08(B)(3), 3745-21-08(B), and 3745-23-06(B).
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)	Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)(3)	use of baghouse dust collection system to minimize or eliminate the escape of fugitive emissions (see section A.I.2.a)
	OAC rule 3745-21-08(B)	See A.I.2.b below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.

**2. Additional Terms and Conditions**

- 2.a The permittee shall use and maintain an exhaust hood capable of minimizing or eliminating the emission of fugitive dust. This exhaust hood shall maintain a capture efficiency at all times in accordance with the emission limitations above, and captured emissions shall be vented to the baghouse.
- 2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 17-766.

**II. Operational Restrictions**

1. The permittee shall not operate the ladle reheat and ladle trim station without the baghouse dust collection system in operation.
2. The pressure drop across the baghouse shall be maintained within a range specified by the equipment manufacturer while in operation.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once-per-shift basis.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-766, issued on 05/02/1990. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

### IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-766, issued on 05/02/1990. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

PE shall not exceed 0.020 gr/dscf and 2.3 lbs/hr.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.
  - 1.b Emission Limitations:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Fugitive visible particulate emissions shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1) and (B)(3).
2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 3 months of permit issuance and every 2.5 years thereafter.
  - b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.
  - e. The pressure drop across the baghouse shall be monitored during each run of this emissions test to establish the pressure drop range as specified in section A.II.2.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

**V. Testing Requirements (continued)**

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-766, issued on 05/02/1990. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF Horizontal Ladle Preheater (P010)

**Activity Description:** Used in the Teeming Aisle at the north end to preheat the ladles prior to use at "A" or "B" vessel.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOF horizontal ladle preheater; 20 million Btu/hr, natural gas-fired	OAC rule 3745-31-05(A)(3) (PTI 17-1198)	Particulate emissions (PE) shall not exceed 0.10 lb/hr and 0.44 tpy.  Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.01 lb/hr and 0.05 tpy.  Organic compound (OC) emissions shall not exceed 0.03 lb/hr and 0.15 tpy.  Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 2.80 lbs/hr and 12.30 tpy.  Carbon monoxide (CO) emissions shall not exceed 0.70 lb/hr and 3.07 tpy.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-06(E)(2)	See section A.I.2.a.
	OAC rule 3745-21-08(B)	See section A.I.2.b.
	OAC rule 3745-23-06(B)	See section A.I.2.b.

**2. Additional Terms and Conditions**

- 2.a** The emission limitation required by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 17-1198.

**II. Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.

**III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall record the following information on a daily basis:
  - a. the amount of natural gas burned in this emissions unit, in mmcf;
  - b. the number of hours of operation; and
  - c. the average hourly natural gas usage, i.e., (a)/(b).
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

PE shall not exceed 0.10 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 factor for PE of 1.9 lbs of PE per million cubic feet of natural gas burned (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The PE emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.b Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.01 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for SO<sub>2</sub> emissions of 0.6 lb of SO<sub>2</sub> per million cubic feet of gas burned (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The SO<sub>2</sub> emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.c Emission Limitation:

OC emissions shall not exceed 0.03 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for OC emissions of 5.5 pounds of OC produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The above OC emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.d Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 2.80 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for NO<sub>x</sub> emissions of 100 pounds (uncontrolled) of NO<sub>x</sub> produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The NO<sub>x</sub> emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-1 (7/98).
  - 1.e Emission Limitation:

CO emissions shall not exceed 0.70 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for CO emissions of 84 pounds of CO produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The CO emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-1 (7/98).
  - 1.f Emission Limitations:

PE shall not exceed 0.44 tpy.  
SO<sub>2</sub> emissions shall not exceed 0.05 tpy.  
OC emissions shall not exceed 0.15 tpy.  
NO<sub>x</sub> emissions shall not exceed 12.30 tpy.  
CO emissions shall not exceed 3.07 tpy.

Applicable Compliance Method:

Compliance with each annual emission limitation shall be determined by adding the daily natural gas consumption volumes for each day of the year (A.III.2.a), multiplying by the appropriate AP-42 emission factor, and then dividing by 2000 lbs/ton.
  - 1.g Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF "A" Ladle Preheater (P011)

**Activity Description:** Used in the Teeming Aisle at the "A" vessel to preheat the ladles prior to tapping the vessel.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOF "A" ladle preheater; 20 million Btu/hr, natural gas-fired	OAC rule 3745-31-05(A)(3) (PTI 17-1198)	Particulate emissions (PE) shall not exceed 0.10 lb/hr and 0.44 tpy.  Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.01 lb/hr and 0.05 tpy.  Organic compound (OC) emissions shall not exceed 0.03 lb/hr and 0.15 tpy.  Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 2.80 lbs/hr and 12.30 tpy.  Carbon monoxide (CO) emissions shall not exceed 0.70 lb/hr and 3.07 tpy.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-06(E)(2)	See section A.I.2.a.
	OAC rule 3745-21-08(B)	See section A.I.2.b.
	OAC rule 3745-23-06(B)	See section A.I.2.b.

**2. Additional Terms and Conditions**

- 2.a** The emission limitation required by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 17-1198.

**II. Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.

**III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall record the following information on a daily basis:
  - a. the amount of natural gas burned in this emissions unit, in mmcf;
  - b. the number of hours of operation; and
  - c. the average hourly natural gas usage, i.e., (a)/(b).
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

PE shall not exceed 0.10 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 factor for PE of 1.9 lbs of PE per million cubic feet of natural gas burned (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The PE emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.b Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.01 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for SO<sub>2</sub> emissions of 0.6 lb of SO<sub>2</sub> per million cubic feet of gas burned (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The SO<sub>2</sub> emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.c Emission Limitation:

OC emissions shall not exceed 0.03 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for OC emissions of 5.5 pounds of OC produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The above OC emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.d Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 2.80 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for NO<sub>x</sub> emissions of 100 pounds (uncontrolled) of NO<sub>x</sub> produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The NO<sub>x</sub> emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-1 (7/98).
  - 1.e Emission Limitation:

CO emissions shall not exceed 0.70 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for CO emissions of 84 pounds of CO produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The CO emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-1 (7/98).
  - 1.f Emission Limitations:

PE shall not exceed 0.44 tpy.  
SO<sub>2</sub> emissions shall not exceed 0.05 tpy.  
OC emissions shall not exceed 0.15 tpy.  
NO<sub>x</sub> emissions shall not exceed 12.30 tpy.  
CO emissions shall not exceed 3.07 tpy.

Applicable Compliance Method:

Compliance with each annual emission limitation shall be determined by adding the daily natural gas consumption volumes for each day of the year (A.III.2.a), multiplying by the appropriate AP-42 emission factor, and then dividing by 2000 lbs/ton.
  - 1.g Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF "B" Ladle Preheater (P012)

**Activity Description:** Used in the Teeming Aisle at the "B" vessel to preheat the ladles prior to tapping the vessel.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOF "B" ladle preheater; 20 million Btu/hr, natural gas-fired	OAC rule 3745-31-05(A)(3) (PTI 17-1198)	Particulate emissions (PE) shall not exceed 0.10 lb/hr and 0.44 tpy.  Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.01 lb/hr and 0.05 tpy.  Organic compound (OC) emissions shall not exceed 0.03 lb/hr and 0.15 tpy.  Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 2.80 lbs/hr and 12.30 tpy.  Carbon monoxide (CO) emissions shall not exceed 0.70 lb/hr and 3.07 tpy.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-06(E)(2)	See section A.I.2.a.
	OAC rule 3745-21-08(B)	See section A.I.2.b.
	OAC rule 3745-23-06(B)	See section A.I.2.b.

**2. Additional Terms and Conditions**

- 2.a** The emission limitation required by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 17-1198.

**II. Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.

**III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall record the following information on a daily basis:
  - a. the amount of natural gas burned in this emissions unit, in mmcf;
  - b. the number of hours of operation; and
  - c. the average hourly natural gas usage, i.e., (a)/(b).
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

PE shall not exceed 0.10 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 factor for PE of 1.9 lbs of PE per million cubic feet of natural gas burned (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The PE emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.b Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.01 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for SO<sub>2</sub> emissions of 0.6 lb of SO<sub>2</sub> per million cubic feet of gas burned (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The SO<sub>2</sub> emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.c Emission Limitation:

OC emissions shall not exceed 0.03 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for OC emissions of 5.5 pounds of OC produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The above OC emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.d Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 2.80 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for NO<sub>x</sub> emissions of 100 pounds (uncontrolled) of NO<sub>x</sub> produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The NO<sub>x</sub> emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-1 (7/98).
  - 1.e Emission Limitation:

CO emissions shall not exceed 0.70 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for CO emissions of 84 pounds of CO produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The CO emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-1 (7/98).
  - 1.f Emission Limitations:

PE shall not exceed 0.44 tpy.  
SO<sub>2</sub> emissions shall not exceed 0.05 tpy.  
OC emissions shall not exceed 0.15 tpy.  
NO<sub>x</sub> emissions shall not exceed 12.30 tpy.  
CO emissions shall not exceed 3.07 tpy.

Applicable Compliance Method:

Compliance with each annual emission limitation shall be determined by adding the daily natural gas consumption volumes for each day of the year (A.III.2.a), multiplying by the appropriate AP-42 emission factor, and then dividing by 2000 lbs/ton.
  - 1.g Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF Portable Ladle Preheater (P013)

**Activity Description:** Used in the Teeming Aisle to preheat the ladles prior to transfer to either "A" or "B" vessel.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOF portable ladle preheater; 20 million Btu/hr, natural gas-fired	OAC rule 3745-31-05(A)(3) (PTI 17-1198)	Particulate emissions (PE) shall not exceed 0.10 lb/hr and 0.44 tpy.  Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.01 lb/hr and 0.05 tpy.  Organic compound (OC) emissions shall not exceed 0.03 lb/hr and 0.15 tpy.  Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 2.80 lbs/hr and 12.30 tpy.  Carbon monoxide (CO) emissions shall not exceed 0.70 lb/hr and 3.07 tpy.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-06(E)(2)	See section A.I.2.a.
	OAC rule 3745-21-08(B)	See section A.I.2.b.
	OAC rule 3745-23-06(B)	See section A.I.2.b.

**2. Additional Terms and Conditions**

- 2.a** The emission limitation required by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 17-1198.

**II. Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.

**III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall record the following information on a daily basis:
  - a. the amount of natural gas burned in this emissions unit, in mmcf;
  - b. the number of hours of operation; and
  - c. the average hourly natural gas usage, i.e., (a)/(b).
3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

PE shall not exceed 0.10 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 factor for PE of 1.9 lbs of PE per million cubic feet of natural gas burned (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The PE emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.b Emission Limitation:

SO<sub>2</sub> emissions shall not exceed 0.01 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for SO<sub>2</sub> emissions of 0.6 lb of SO<sub>2</sub> per million cubic feet of gas burned (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The SO<sub>2</sub> emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.c Emission Limitation:

OC emissions shall not exceed 0.03 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for OC emissions of 5.5 pounds of OC produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The above OC emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-2 (7/98).
  - 1.d Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 2.80 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for NO<sub>x</sub> emissions of 100 pounds (uncontrolled) of NO<sub>x</sub> produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The NO<sub>x</sub> emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-1 (7/98).
  - 1.e Emission Limitation:

CO emissions shall not exceed 0.70 lb/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the AP-42 emission factor for CO emissions of 84 pounds of CO produced per million cubic feet of natural gas fired (resulting from the operation of natural gas fuel burning equipment) by the average hourly natural gas consumption rate of the emissions unit (A.III.2.c).

The CO emission factor was obtained from AP-42, Chapter 1.4, Table 1.4-1 (7/98).
  - 1.f Emission Limitations:

PE shall not exceed 0.44 tpy.  
SO<sub>2</sub> emissions shall not exceed 0.05 tpy.  
OC emissions shall not exceed 0.15 tpy.  
NO<sub>x</sub> emissions shall not exceed 12.30 tpy.  
CO emissions shall not exceed 3.07 tpy.

Applicable Compliance Method:

Compliance with each annual emission limitation shall be determined by adding the daily natural gas consumption volumes for each day of the year (A.III.2.a), multiplying by the appropriate AP-42 emission factor, and then dividing by 2000 lbs/ton.
  - 1.g Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-1198, issued on 09/01/1993. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF Gas Tower Cooling Tower (P014)

**Activity Description:** BOF Gas Cooling Tower

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOF gas cooling tower	OAC rule 3745-17-07(A) OAC rule 3745-17-11	See section A.I.2.b. See section A.I.2.a.

**2. Additional Terms and Conditions**

- 2.a The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour as determined using the particulate emission factor of 0.0011 lb/1000 gallons. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply pursuant to OAC rule 3745-17-11(A)(2)(b)(ii).

Emissions were calculated based on AP-42 Section 13.4 (1/95) and the following specific data:

19,350 gpm  
 Maximum TDS = 650 ppm  
 Total liquid drift = 1.7 lb/M gal

$$19,350 * 60/1000 * 1.7 * 0.000650 = 1.28 \text{ lbs/hr of particulate emissions}$$

- 2.b This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** 80" Finish Mill Cooling Tower (P015)

**Activity Description:** 80" Finish Mill Cooling Tower

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
80" finish mill cooling tower	OAC rule 3745-17-07(A)  OAC rule 3745-17-11	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.  Particulate emissions shall not exceed 100.5 lbs/hr.

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

1. The permittee shall maintain an average total dissolved solids (TDS) content of 602 ppm or less in the circulating cooling water.

**III. Monitoring and/or Record Keeping Requirements**

1. Each month, the permittee shall collect a sample of the circulating cooling water and determine the TDS concentration (ppm) in the sample using Standard Methods for Water and Wastewater. The permittee shall maintain a record of the results of all TDS analyses.

**IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify any month during which the total dissolved solids content of the circulating cooling water exceeded 602 ppm, and the actual total dissolved solids content of the circulating cooling water for each such month.
2. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.I.c.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a Emission Limitation:**

Particulate emissions shall not exceed 100.5 lbs/hr.

Applicable Compliance Method:

Actual emissions shall be calculated based on AP-42, section 13.4 (1/95) and the following specific data:

Maximum flowrate = 20,200 gpm;  
 Maximum TDS = 602 ppm; and  
 Total liquid drift = 1.7 lb/million gallons.

**1.b Emission Limitation:**

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** South Iron Torpedo Conditioning (P021)  
**Activity Description:** Coke Oven Gas Burning in the De-Kishing Building to condition the iron torpedos

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
South iron torpedo conditioning (heat treating of the linings of the hot metal bottles for the blast furnaces)	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	Use of reasonably available control technology to minimize or eliminate fugitive emissions (see section A.I.2.b)
	OAC rule 3745-18-47(C)	See section A.I.2.a.

**2. Additional Terms and Conditions**

- 2.a Only desulfurized coke oven gas (COG) with a hydrogen sulfide (H<sub>2</sub>S) content of 50 grains per 100 dry standard cubic feet or less shall be combusted in this emissions unit (see Part II, Specific Facility Term and Condition A, for all monitoring and reporting requirements).
- 2.b All torpedo car conditioning shall be conducted within the dekishing building in order to minimize the emission of fugitive dust.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform monthly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. See Part II - Specific Facility Term and Condition A.3.

**IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
2. See Part II - Specific Facility Terms and Conditions A.2 and A.4.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a Emission Limitation:**

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

Only desulfurized COG with a H<sub>2</sub>S content of 50 grains per 100 dry standard cubic feet or less shall be combusted in this emissions unit.

Applicable Compliance Method:

See Part II - Specific Facility Term and Condition A.3.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** South Blast Furnaces Cooling Tower (P022)

**Activity Description:** South Blast Furnace Recycle Cooling Tower

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
South blast furnace recycle cooling tower	OAC rule 3745-17-07(A)  OAC rule 3745-17-11	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.  Particulate emissions shall not exceed 76.6 lbs/hr.

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

1. The permittee shall maintain an average total dissolved solids (TDS) content of 5988 ppm or less in the circulating cooling water.

**III. Monitoring and/or Record Keeping Requirements**

1. Each month, the permittee shall collect a sample of the circulating cooling water and determine the TDS concentration (ppm) in the sample using Standard Methods for Water and Wastewater. The permittee shall maintain a record of the results of all TDS analyses.

**IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation reports that identify any month during which the total dissolved solids content of the circulating cooling water exceeded 5988 ppm, and the actual total dissolved solids content of the circulating cooling water for each such month.
2. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.I.c.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a Emission Limitation:**

Particulate emissions shall not exceed 76.6 lbs/hr.

Applicable Compliance Method:

Actual emissions shall be calculated based on AP-42, section 13.4 (1/95) and the following specific data:

Maximum flowrate = 3,700 gpm;  
 Maximum TDS = 5988 ppm; and  
 Total liquid drift = 1.7 lb/million gallons.

**1.b Emission Limitation:**

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** No. 3 Pickler (P111)  
**Activity Description:** Continuous Strip Pickler

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
No.3 pickling line and scrubber system	40 CFR Part 63, Subpart CCC	No exhaust gases from the scrubber stack shall contain hydrochloric acid (HCl) in a concentration in excess of 18 parts per million by volume (ppmv);  or  HCl shall not be emitted at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.  See section A.I.2.a.

2. **Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

1. The permittee shall comply with the operation and maintenance requirements specified in 40 CFR Part 63.6(e).
- 1.a 40 CFR Part 63.6(e) requires the permittee of an affected emissions unit to operate and maintain each affected emissions unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the level required by the standard at all times, including during any period of startup, shutdown, or malfunction. Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan.
2. The permittee shall adhere to the operation and maintenance plan for each emission control device as required by 40 CFR 63.1160(b)(2), sections A.II.2.a and A.II.2.b as listed below, and sections A.III.8, A.III.9, A.III.10, and A.III.11:
  - a. the permittee shall follow the manufacturer's recommended maintenance at the recommended intervals on fresh solvent pumps, recirculating pumps, discharge pumps, and other liquid pumps, in addition to exhaust system and scrubber fans and motors associated with those pumps and fans; and
  - b. the scrubber internals and mist eliminators shall be cleaned at intervals sufficient to prevent buildup of solids or other fouling.
3. The scrubber makeup water flow rate shall be continuously maintained at a value greater than or equal to the value recommended by the scrubber manufacturer until such time as an initial compliance test is performed. After the initial compliance test is completed, the scrubber makeup water flow rate shall be continuously maintained at a value greater than or equal to the minimum makeup water flow rate established during the most recent emission test that demonstrated that the emissions unit was in compliance.

The scrubber recirculation water flow rate shall be continuously maintained at a value greater than or equal to the value recommended by the scrubber manufacturer until such time as an initial compliance test is performed. After the initial compliance test is completed, the scrubber recirculation water flow rate shall be continuously maintained at a value greater than or equal to the minimum recirculation water flow rate established during the most recent emission test that demonstrated that the emissions unit was in compliance.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain systems for the measurement and recording of the scrubber makeup water flow rate and recirculation water flow rate. These flow rates must be monitored continuously and recorded at least once per shift while the scrubber is operating. Operation of the wet scrubber with excursions of scrubber makeup water flow rate and recirculation water flow rate less than the minimum values established during the performance test or tests will require initiation of corrective action as specified by the maintenance requirements in 40 CFR Part 63.1160(b)(2).
2. Each monitoring device shall be certified by the manufacturer to be accurate to within 5 percent and shall be calibrated in accordance with the manufacturer's instructions, but not less frequently than once per year.
3. The permittee may develop and submit to the Ohio EPA, Southeast District Office an alternative monitoring approach for the wet scrubber serving this emissions unit. If the alternative wet scrubber monitoring approach is determined to be acceptable, the alternative monitoring approach will be incorporated into the Title V permit in accordance with the applicable provisions of OAC rule 3745-77-08 (i.e., through an administrative amendment, minor modification or significant modification, as appropriate.)

### III. Monitoring and/or Record Keeping Requirements (continued)

4. The permittee shall maintain records for 5 years from the date of each record of:
  - a. the occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., for process equipment);
  - b. the occurrence and duration of each malfunction of the air pollution control equipment;
  - c. all maintenance performed on the air pollution control equipment;
  - d. actions taken during periods of startup, shutdown, and malfunction and the dates of such actions (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when these actions are different from the procedures specified in the startup, shutdown, and malfunction plan;
  - e. all information necessary to demonstrate conformance with the startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan (this information can be recorded in a checklist or similar form);
  - f. all required measurements needed to demonstrate compliance with the standard and to support data that the source is required to report, including, but not limited to, performance test measurements (including initial and any subsequent performance tests) and measurements as may be necessary to determine the conditions of the initial test or subsequent tests;
  - g. all results of initial or subsequent performance tests;
  - h. if the permittee has been granted a waiver from record keeping or reporting requirements under 40 CFR Part 63.10(f), any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements;
  - i. if the permittee has been granted a waiver from the initial performance test under 40 CFR Part 63.7(h), a copy of the full request and the Administrator's approval or disapproval;
  - j. all documentation supporting initial notifications and notifications of compliance status required by 40 CFR Part 63.9; and
  - k. records of any applicability determination, including supporting analyses.
5. The permittee shall maintain records for 5 years from the date of each record of:
  - a. scrubber makeup water flow rate data and recirculation water flow rate data;
  - b. calibration and manufacturer certification that monitoring devices are accurate to within 5 percent; and
  - c. each maintenance inspection and repair, replacement, or other corrective action.
6. The permittee shall keep the written operation and maintenance plan on record to be made available for inspection, upon request, by the Administrator and the Ohio EPA, Southeast District Office for the life of the affected source or until the source is no longer subject to the provisions of the Subpart. In addition, if the operation and maintenance plan is revised, the permittee shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection by the Administrator and the Ohio EPA, Southeast District Office for a period of 5 years after each revision to the plan.
7. General records and 40 CFR Part 63, Subpart CCC records for the most recent 2 years of operation must be maintained on site. Records for the previous 3 years may be maintained off site.
8. The permittee shall monitor and record the pressure drop across the scrubber once per shift while the scrubber is operating in order to identify changes that may indicate a need for maintenance.
9. Inspection of each scrubber shall be conducted at intervals of no less than 3 months and shall include the following:
  - a. cleaning or replacement of any plugged spray nozzles or other liquid delivery devices;
  - b. repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components;
  - c. repair or replacement of droplet eliminator elements as needed;
  - d. repair or replacement of heat exchanger elements used to control the temperature of fluids entering or leaving the scrubber; and
  - e. adjustment of damper settings for consistency with the required air flow.

If the scrubber is not equipped with a viewport or access hatch allowing visual inspection, alternate means of inspection approved by the Administrator and the Ohio EPA, Southeast District Office may be used.
10. The permittee shall initiate procedures for corrective action within 1 working day of detection of an operating problem and complete all corrective actions as soon as practicable. Procedures to be initiated are the applicable actions that are specified in the maintenance plan. Failure to initiate or provide appropriate repair, replacement, or other corrective action is a violation of the maintenance requirement of 40 CFR Part 63, Subpart CCC.
11. The permittee shall maintain a record of each inspection, including each item identified in section A.III.9, that is signed by the responsible maintenance official and that shows the date of each inspection, the problem identified, a description of the repair, replacement, or other corrective action taken, and the date of the repair, replacement, or other corrective action taken.

### IV. Reporting Requirements

1. The permittee shall submit deviation reports for any of the following occurrences:
  - a. the identification of each excursion of the scrubber makeup water and recirculation water flow rates required in section A.III.1; and
  - b. the identification of each malfunction of the control or process equipment required in sections A.III.4.a and/or A.III.4.b and the information required in sections A.III.4.c, A.III.4.d, A.III.4.e, and A.III.5.c.

The permittee shall also identify in these reports any scrubber pressure drop readings that indicate a need for maintenance as required in section A.III.8.
2. All reports shall be submitted within 7 days of the occurrence of any malfunction or deviation (excursion) and shall include the following information in addition to the information required in section A.IV.1:
  - a. the date and time of the excursion/malfunction;
  - b. the description of the excursion/malfunction;
  - c. the cause of the malfunction/excursion;
  - d. the length of time that the malfunction occurred;
  - e. the immediate corrective actions taken;
  - f. the date and time that corrective actions were implemented;
  - g. the description of the corrective actions taken; and
  - h. the name of the individual responsible for implementing corrective actions.
3. As required by 40 CFR Part 63.10(d)(2), the permittee of an affected emissions unit shall report the results of any performance test as part of the notification of compliance status required in 40 CFR Part 63.1163.

#### IV. Reporting Requirements (continued)

4. If actions taken by the permittee during a startup, shutdown, or malfunction of an affected emissions unit (including actions taken to correct a malfunction) are consistent with the procedures specified in the startup, shutdown, and malfunction plan, the permittee shall state such information in a semiannual report. The report, to be certified by the permittee or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half.
5. Any time an action taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 40 CFR Part 63.10(d)(5)(ii).

#### V. Testing Requirements

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

1.a Emission Limitation:

No exhaust gases from the scrubber stack shall contain HCl in a concentration in excess of 18 ppmv.

or

HCl shall not be emitted at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.

Applicable Compliance Method:

Performance tests shall be conducted to measure the HCl mass emission rates at the control device inlet and outlet or the concentration of HCl exiting the control device according to the procedures described in 40 CFR Part 63.1161. A performance test shall be conducted within 6 months after Title V issuance and 2.5 years after this date.

2. Following approval of the site-specific test plan, the permittee shall conduct a performance test for each process or control device to either measure simultaneously the mass emission rates of HCl at the inlet and the outlet of the control device (to determine compliance with the applicable collection efficiency standard) or measure the concentration of HCl in gases exiting the process or the emission control device (to determine compliance with the applicable emission concentration standard).
3. Compliance with the applicable concentration standard or collection efficiency standard shall be determined by the average of three consecutive runs or by the average of any three of four consecutive runs. Each run shall be conducted under conditions representative of normal process operations.
4. Compliance is achieved if either the average collection efficiency as determined by the HCl mass emission rates at the control device inlet and outlet is greater than or equal to the applicable collection efficiency standard, or the average measured concentration of HCl exiting the process or the emission control device is less than or equal to the applicable emission concentration standard.
5. During the performance test for each emission control device, the permittee using a wet scrubber to achieve compliance shall establish site-specific operating parameter values for the minimum scrubber makeup water flow rate and, for scrubbers that operate with recirculation, the minimum recirculation water flow rate. During the emission test, each operating parameter must be monitored continuously and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes. The permittee shall determine the operating parameter monitoring values as the averages of the values recorded during any of the runs for which results are used to establish the emission concentration or collection efficiency per section A.V.3, above. The permittee may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, the permittee may reestablish compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests.
6. The following test methods in 40 CFR Part 60, Appendix A shall be used to determine compliance under 40 CFR Parts 63.1157(a), 63.1157(b), 63.1158(a), and 63.1158(b):
  - a. Method 1, to determine the number and location of sampling points, with the exception that no traverse point shall be within one inch of the stack or duct wall;
  - b. Method 2, to determine gas velocity and volumetric flow rate;
  - c. Method 3, to determine the molecular weight of the stack gas;
  - d. Method 4, to determine the moisture content of the stack gas; and
  - e. Method 26A, "Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources--Isokinetic Method," to determine the HCl mass flows at the inlet and outlet of a control device or the concentration of HCl discharged to the atmosphere. If compliance with a collection efficiency standard is being demonstrated, inlet and outlet measurements shall be performed simultaneously. The minimum sampling time for each run shall be 60 minutes and the minimum sample volume 0.85 dry standard cubic meters (30 dry standard cubic feet). The concentrations of HCl shall be calculated for each run as follows:  
$$C(\text{ppmv}) = 0.659 C(\text{mg/dscm}),$$
where:  
C(ppmv) is concentration in ppmv and C(mg/dscm) is concentration in milligrams per dry standard cubic meter as calculated by the procedure given in Method 26A.
7. The permittee may use equivalent alternative measurement methods approved by the Administrator and the Ohio EPA, Southeast District Office.
8. The permittee shall notify the Administrator and the Ohio EPA, Southeast District Office in writing of the intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, to allow the Administrator and the Ohio EPA, Southeast District Office to review and approve the site-specific test plan required in 40 CFR Part 63.7(c) and, if requested by the Administrator and/or the Ohio EPA, Southeast District Office, to have an observer present during the test.

#### VI. Miscellaneous Requirements

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** North Blast Furnaces Cooling Tower (P112)

**Activity Description:** North Blast Furnace Recycle Cooling Tower

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
North blast furnace recycle cooling tower	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11	Particulate emissions shall not exceed 70.7 lbs/hr.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

- The permittee shall maintain an average total dissolved solids (TDS) content of 5,286 ppm or less in the circulating cooling water.

**III. Monitoring and/or Record Keeping Requirements**

- Each month, the permittee shall collect a sample of the circulating cooling water and determine the TDS concentration (ppm) in the sample using Standard Methods for Water and Wastewater. The permittee shall maintain a record of the results of all TDS analyses.

**IV. Reporting Requirements**

- The permittee shall submit quarterly deviation reports that identify any month during which the total dissolved solids content of the circulating cooling water exceeded 5286 ppm, and the actual total dissolved solids content of the circulating cooling water for each such month.
- The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.I.c.

**V. Testing Requirements**

- Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a Emission Limitation:**

Particulate emissions shall not exceed 70.7 lbs/hr.

Applicable Compliance Method:

Actual emissions shall be calculated based on AP-42, section 13.4 (1/95) and the following specific data:

Maximum flowrate = 2,300 gpm;  
 Maximum TDS = 5286 ppm; and  
 Total liquid drift = 1.7 lb/million gallons.

**1.b Emission Limitation:**

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**VI. Miscellaneous Requirements**

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Blast Furnace 5 (P903)  
**Activity Description:** Blast Furnace including furnace, skip hoist, casthouse, stoves, bleeders

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Blast Furnace no. 5 casthouse	OAC rule 3745-17-08(B)	use of reasonably available control technology to minimize or eliminate visible emissions of fugitive dust (See sections A.I.2.b and A.I.2.c.)
	OAC rule 3745-17-13(F)(6)(a)	See section A.I.2.a
	40 CFR Part 63, Subpart FFFFF	See sections A.IV.3 and A.IV.4.
Blast Furnace no. 5 stove stacks	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-13(F)(6)(d)	The total particulate emissions (PE) from the stove stacks serving blast furnace no. 5 shall not exceed 3.5 lbs/hr.
	40 CFR Part 63, Subpart FFFFF	See sections A.IV.3 and A.IV.4.
	OAC rule 3745-18-06(E)(2)	Emissions of sulfur dioxide (SO <sub>2</sub> ) shall not exceed 1978.4 lbs/hr (see section A.I.2.e).
Blast Furnace no. 5 smokeless flare	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-13(F)(6)(c)	PE shall not exceed 0.48 lb/hr.
		See section A.I.2.d.
Blast Furnace no. 5 flue dust handling	40 CFR Part 63, Subpart FFFFF	See sections A.IV.3 and A.IV.4.
	OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
Casthouse baghouse	OAC rule 3745-17-08(B)	use of reasonably available control measures to minimize or eliminate visible emissions of fugitive dust (See section A.I.2.c.)
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-13(F)(6)(b)	The total PE from the baghouse serving the casthouse shall not exceed 0.31 lb/hr. (See section A.I.2.a.)
	40 CFR Part 63, Subpart FFFFF	See sections A.IV.3 and A.IV.4.

**2. Additional Terms and Conditions**

- 2.a** Visible emissions from the blast furnace no. 5 casthouse shall not exceed the following limits, as required by OAC rule 3745-17-13(F)(6):
- i. for emissions associated with the opening of the tap hole, 20% opacity as a 3-minute average, for not more than one 3-minute period during any period of 60 consecutive minutes;
  - ii. for emissions associated with closing the tap hole, 20% opacity as a 3-minute average, for not more than one 3-minute period during any period of 60 consecutive minutes;
  - iii. for emissions associated with changing torpedo cars, 20% opacity as a 1-minute average, for not more than one 1-minute period during any period of 60 consecutive minutes; and
  - iv. 5% opacity as a 6-minute average at all other times.
- 2.b** Emissions from blast furnace no. 5 shall be controlled through the following methods:
- i. ventilation of trough hood and cover to the casthouse baghouse;
  - ii. use of tight runner covers and ventilation of hood over tilting runner and openings into torpedo cars to the casthouse baghouse;
  - iii. ventilation of sliding slag runner inside building to the casthouse baghouse;
  - iv. use of an air curtain at iron trough and flame suppression at torpedo cars as needed;
  - v. use of a small bell and a large bell when charging the blast furnace; and
  - vi. use of a smokeless flare to combust all excess blast furnace gas.

## 2. Additional Terms and Conditions (continued)

**2.c** The permittee shall utilize the following control measures when handling flue dust:

- i. water suppression during all flue dust loading, unloading, and handling operations;
- ii. minimization of drop heights during transfer operations;
- iii. use of an enclosed conveyance system for flue dust transfer, where possible; and
- iv. maintenance of settling chamber and associated flue dust equipment to eliminate fugitive emissions during transfer and blast furnace gas cleaning operations.

**2.d** All excess blast furnace gases shall be vented to a smokeless flare system which is designed and operated in accordance with good engineering practice and capable of efficiently combusting the gases.

**2.e** Maximum SO<sub>2</sub> hourly emission limitations are calculated per OAC rule 3745-18-06(E)(2) by the following equation:

$$\text{AER} = 30 \times (P)^{0.67}$$

Per historical permit application/production data, P = 519.05 tons/hr

$$\text{AER} = 1978.4 \text{ lbs/hr of SO}_2$$

Because only blast furnace gas is combusted in this emissions unit, the SO<sub>2</sub> emissions are small in comparison to the allowable; therefore, no monitoring, record keeping, or reporting is required.

## II. Operational Restrictions

1. The pressure drop across the casthouse baghouse shall be maintained within the range of 2 to 10 inches of water.
2. In accordance with OAC rule 3745-17-13(F)(6)(e), the total maximum daily production rate for blast furnace no. 5 shall not exceed 5,750 net tons of metal per day.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible fugitive particulate emissions from the blast furnace no. 5 flue. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible fugitive particulate emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stove stacks. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
3. The permittee shall perform visible emission readings of the fugitive emissions from the flue dust handling operation for blast furnace no. 5. The visible emission readings shall be performed by certified smoke readers in accordance with the procedures contained in section (B)(1) of OAC rule 3745-17-03.

Readings shall be taken once per week or during each flue dust handling event (whichever is less frequent) at the collection point during flue dust handling activities and shall be recorded on forms which have been approved by the Director.

4. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the casthouse baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
5. Daily iron production records shall be maintained to show compliance with section A.II.2. Daily records shall be maintained for 3 years.
6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the no. 5 blast furnace smokeless flare. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
7. The permittee shall perform visible emission readings of the fugitive emissions from the casthouse roof monitor which is employed for blast furnace no. 5. The visible emission readings shall be performed by certified smoke readers in accordance with the procedures contained in paragraph (B)(1) of OAC rule 3745-17-03.

Readings taken during one entire cast shall be performed at least once per week and shall be recorded on forms which have been approved by the Director. Observations shall commence when tapping occurs.

### III. Monitoring and/or Record Keeping Requirements (continued)

8. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the no. 5 blast furnace casthouse baghouse exhaust. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

1. On a quarterly basis, the permittee shall submit to the Ohio EPA, Southeast District Office the results of all Method 9 visible emission readings performed in accordance with section A.III, above, that indicate a violation of the applicable standard. Each report shall be submitted by the last day of the month following the calendar quarter, and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the blast furnace no. 5 flue serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stove stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the no. 5 blast furnace smokeless flare and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the no. 5 blast furnace casthouse baghouse exhaust and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
7. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which total maximum daily production rate for blast furnace no. 5 exceeds 5,750 net tons of metal, and the actual total maximum daily production rate for each such day.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

The total PE from the stove stack serving blast furnace no. 5 shall not exceed 3.5 lbs/hr.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.
  - 1.b Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the procedures specified in Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.
  - 1.c Emission Limitation:

The total PE from the flare serving blast furnace no. 5 shall not exceed 0.48 lb/hr.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.
  - 1.d Emission Limitation:

The total PE from the baghouse serving the casthouse shall not exceed 0.31 lb/hr.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.
  - 1.e Operational Restriction:

The total maximum daily production rate for blast furnace no. 5 shall not exceed 5,750 net tons of metal per day.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirement specified in section A.III.5.

## V. Testing Requirements (continued)

### 1.f Emission Limitation:

Emissions of SO<sub>2</sub> shall not exceed 1978.4 lbs/hr.

Applicable Compliance Method:

Compliance shall be based on the "worst case scenario" of 100% combustion of blast furnace gas in the stoves. Stove capacity is 330 million Btu/hr. From Clean Air Engineering blast furnace gas study (02/99), BF gas heat content = 74 Btu/cf. BF sulfur content = 10.8 lbs/million cf.

Assuming 100% sulfur emitted as SO<sub>2</sub>:

$(330 \text{ million Btu/hr}) / (74 \text{ million Btu/million cf}) = 4.46 \text{ million cf/hr}$

$(4.46 \text{ million cf/hr}) * (10.8 \text{ lbs of S/million cf}) = 48.16 \text{ lbs/hr of SO}_2$

### 2. The permittee shall conduct, or have conducted, emission testing for the blast furnace no. 5 stove stack in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months of the Title V permit issuance and shall be conducted every 2.5 years thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.

e. The pressure drop across the baghouse shall be monitored during each run of this emission test to establish the pressure drop range as specified in section A.II.2.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

### 1. Blast furnace #5 underwent modifications/rebuild in 1995 that required a PTI. Ohio EPA is currently finalizing the necessary permit for this source. At the time that the PTI is issued, the permittee shall be required to comply with all requirements of the PTI. These requirements will also be incorporated into the Title V permit.

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF Charge-Blow-Tap Vessels "A" and "B" (P904)

**Activity Description:** Basic Oxygen Furnaces - Charging, Blow, Tapping, and Slag Dump (includes both "A" and "B" vessels).

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Basic oxygen furnace (BOF), including vessels "A" and "B" (equipped with a venturi for the primary scrubber emissions)	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-13(F)(7)	Total particulate emissions (PE) from the venturi scrubber shall not exceed 21.4 lbs/hr.
	OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	use of reasonably available control measures to prevent fugitive dust from becoming airborne (see sections A.1.2.a, A.1.2.b, and A.II)
	40 CFR Part 63, Subpart FFFFF	See Part II, sections A.5, A.6, A.7, and A.8.

**2. Additional Terms and Conditions**

- 2.a The permittee shall operate and maintain the venturi scrubber in accordance with good engineering practices at all times during emissions unit operation.
- 2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the use of localized hooding over the BOF vessel.

The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

**II. Operational Restrictions**

1. The permittee shall instruct and require the operators to charge hot metal into the vessel in a manner that will minimize or eliminate splashing. Hot metal charging of the vessel shall be done with the vessel tilted no more than 40 degrees from the vertical position or in a manner that will allow for a hood capture efficiency that will minimize or eliminate fugitive emissions. Hot metal charging shall be conducted with full draft on the primary exhaust system.
2. Scrap inspection and segregation procedures shall be utilized to ensure that excessively oily scrap will be excluded from charging to the vessels. No turnings or borings shall be charged to the vessel.
3. The permittee shall not charge any radioactive material into the BOF vessel.
4. Furnace tapping shall be conducted with full draft on the primary exhaust system.
5. The permittee shall not simultaneously blow vessels A and B at any time.
6. The permittee shall maintain the following scrubber fan currents at all times:
  - a. a minimum of 280 amps during all non-blowing periods; and
  - b. a minimum of 200 amps during all blowing periods.
7. The permittee shall maintain the following venturi scrubber parameters at all times:
  - a. a minimum of 4,400 gallons/minute of water flow rate; and
  - b. a minimum of 50 inches of water pressure drop across the scrubber.
8. The permittee shall utilize flame suppression during all hot metal charging and tapping activities in order to minimize or eliminate fugitive particulate emissions.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain instrumentation to continuously monitor fan amperage for the BOF scrubber fan.
2. The permittee shall operate and maintain instrumentation to continuously monitor the venturi scrubber water flow rate and pressure drop.
3. The permittee shall maintain continuous recording devices with strip charts (or equivalent media) for each of the following parameters of BOF operation at all times during operation:
  - a. fan amperage;
  - b. scrubber water flow rate (gallons per minute); and
  - c. pressure drop across the scrubber (inches of water).
4. All monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

### III. Monitoring and/or Record Keeping Requirements (continued)

5. The permittee shall maintain continuous records of the following information:
  - a. the pressure drop across the venturi scrubber, in inches of water;
  - b. the venturi scrubber water flow rate, in gallons per minute;
  - c. the exhaust fan amperage; and
  - d. the operating times for the control device, monitoring equipment, and the associated emissions unit.
6. The permittee shall conduct or have conducted (by qualified, certified observers) visible emissions readings for the following:
  - a. scrubber stack serving the BOF shop; and
  - b. roof monitor for the BOF shop.

These readings shall be performed in accordance with methods specified by Method 9 of 40 CFR Part 60, Appendix A. Readings shall be performed for a minimum of four consecutive heats per week and shall be recorded on forms approved by the Director. Observations shall commence when charging is initiated.

In addition, the permittee shall record all relative BOF operational events that coincide with the visible emissions readings along with the exact time including (but not limited to) the following: hot metal charge (start and end), scrap metal charge (start and end), blow (start and end), alloy addition, alum addition, tap (start and end), slag tap (start and end), and hot metal desulfurization (start and end).
7. The permittee shall inspect, on a weekly basis, the following components of the BOF venturi scrubber system:
  - a. the capture hooding immediately over the BOF vessels for damaged or missing plates, as well as gaps and damaged components of the hooding and/or ductwork (inspections shall be conducted to identify areas from which fugitive emissions are escaping or have the potential to escape from the BOF venturi scrubber system);
  - b. all ducting between the BOF hooding and scrubber system for breaks, tears, or other damage that would allow ambient air to enter the control device, captured BOF emissions to escape, or maximum flow to be restricted;
  - c. the BOF scrubber vessel for visible damage or defects that would affect proper operation;
  - d. the scrubber fan, including belts, electrical wiring, and fan housing, for visible signs of wear or damage; and
  - e. the wiring and mechanical linkages and components for visible wear or damage.
8. The permittee shall maintain records of all BOF scrubber system inspections as described in section A.III.8. Inspection records shall include the following items:
  - a. the date and time of each inspection;
  - b. the name of the individual conducting the inspection;
  - c. the inspector's findings for each individual component listed in section A.III.8 (if an inspection revealed no problems, the inspector shall indicate this in the log); and
  - d. the description of measures taken to correct any problems noted, including date, time, parts replaced, or other actions.
9. The permittee shall maintain instrumentation that monitors and records the maximum BOF vessel tilt angle during each hot metal charge. The maximum tilt angle shall be recorded for the hot metal charge for each heat. The records shall be kept for five years.
10. The permittee shall monitor the scrubber fan amperage during each hot metal charge. Records shall be kept of the minimum fan amperage recorded during each event along with the date and the time of the charge.
11. The permittee shall record all times during which flame suppression was not used while tapping the BOF vessel.

### IV. Reporting Requirements

1. The permittee shall submit quarterly reports which identify all deviations from the operational restrictions in sections A.II.1 through A.II.8. These reports shall contain the following information:
  - a. all periods during which the fan amperage dropped below the minimum values specified in section A.II.6;
  - b. all heats during which hot metal charging occurred with the vessel tilted beyond the 40 degree maximum tilt angle;
  - c. all periods during which the furnace was tapped or charged without full draft on the primary exhaust system;
  - d. all periods during which the venturi scrubber water flow rate dropped below the minimum of 4,400 gallons/minute;
  - e. all periods during which the differential pressure across the venturi scrubber was less than 50 inches of water;
  - f. all times during which flame suppression was not utilized during furnace tapping; and
  - g. all times during which vessels "A" and "B" were simultaneously blown.

Each item described above shall include the date of each deviation, duration of each deviation, and cause of each deviation. The report shall also indicate the steps taken to correct the problem(s) and steps taken to prevent recurrence.
2. On a quarterly basis, the permittee shall submit to Ohio EPA, Southeast District Office the results of the visible particulate emissions readings and the time recordings of the BOF activities, performed pursuant to requirement section A.III.6, that show an exceedance of the applicable visible emission standard. The quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include data obtained during the previous calendar quarter.
3. The permittee shall submit to Ohio EPA a quarterly report detailing the results of the weekly inspections required in section A.III.8. This report shall include a description of all problems noted during the inspections for that quarterly period. For each problem, the permittee shall include information collected per section A.III.10. If no problems with the control equipment were noted during the quarterly reporting period based on the required inspections, the report shall include a statement indicating that no problems were noted.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

### 1.a Emission Limitations:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon emission observations taken pursuant to the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rules 3745-17-03(B)(1) and (B)(3).

### 1.b Emission Limitation:

Total PE from the scrubber shall not exceed 21.4 lbs/hr.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.

### 2. The permittee shall conduct, or have conducted, emission testing for the BOF scrubber stack in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months of Title V permit issuance and shall be conducted every 2.5 years thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 (for stack emissions and fugitive emissions) of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** BOF Hot Metal Desulfurization and Slag Skimming (P907)  
**Activity Description:** Back-up Desulfurization performed in Reladle Pit. Reports required when used.

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
BOF hot metal desulfurization and slag skimming station, equipped with a baghouse	OAC rule 3745-31-05(A)(3) (PTI 17-498)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A), 3745-17-07(B), 3745-17-08, and 3745-17-13(F)(8).
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-13(F)(8)	Particulate emissions (PE) from the baghouse stack shall not exceed 5.0 lbs/hr.
	OAC rule 3745-17-07(B)	Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08	See section A.I.2.a.

**2. Additional Terms and Conditions**

- 2.a The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the use of localized hooding over the desulfurization vessel.

The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

**II. Operational Restrictions**

1. This emissions unit shall not be operated without the use of the baghouse dust collection system.
2. The pressure drop across the baghouse shall be maintained within the manufacturer's recommended range, while the emissions unit is in operation, until a pressure drop range that is more representative of actual operating conditions can be established during the emission testing required in section A.V.2. The appropriate pressure drop range shall be determined and submitted in writing to the Ohio EPA, Southeast District Office within 1 month after completion of the emission tests.

The permittee may petition the Ohio EPA, Southeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Southeast District Office's satisfaction that the operating conditions upon which the pressure drop range was previously established are no longer applicable.

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once-per-shift basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

### III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-498, issued on 05/20/1987. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.2.
2. The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Term and Condition A.1.c.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-498, issued on 05/20/1987. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

### V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

PE shall not exceed 5.0 lbs/hr from the baghouse stack.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.
  - 1.b Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and OAC rules 3745-17-03(B)(1) and (B)(3).
2. The permittee shall conduct, or have conducted, emission testing for the BOF hot metal desulfurization and slag skimming station baghouse stack in accordance with the following requirements:
  - a. The emission testing shall be conducted within 6 months of Title V permit issuance and every 2.5 years thereafter.
  - b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A and Method 9 (for both baghouse stack and fugitive emissions). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.
  - e. The pressure drop across the baghouse shall be monitored during each run of this emissions test to establish the pressure drop range as specified in section A.II.2.

**V. Testing Requirements (continued)**

3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-498, issued on 05/20/1987. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** CAS-OB (P908)  
**Activity Description:** Ladle Refining Station

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Ladle refining station (CAS-OB), equipped with a Wheelabrator baghouse	OAC rule 3745-31-05(A)(3) (PTI 17-1325)	Particulate emissions (PE) shall not exceed 0.0020 gr/acf of exhaust gases from the Wheelabrator baghouse.
	OAC rule 3745-17-07(A)	Visible particulate emissions from the Wheelabrator baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
CAS-OB material handling operations, controlled with full enclosure	OAC rule 3745-31-05(A)(3) (PTI 17-1325)	Visible particulate emissions from material transfer points shall not exceed 10% opacity as a 6-minute average.
	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The baghouse collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust.
CAS-OB flow-bin loading operation, controlled with a Torit filter		See section A.I.2.a.
	OAC rule 3745-31-05(A)(3) (PTI 17-1325)	PE shall not exceed 0.020 gr/acf of exhaust gases or no visible particulate emissions, whichever is less restrictive, from the Torit bin vent filter.
		Visible particulate emissions from material transfer points shall not exceed 10% opacity as a 6-minute average.
	OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The baghouse collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust.
		See section A.I.2.a.
Ladle refining station (CAS-OB) and material handling operations (Wheelabrator baghouse and fugitive emissions)	OAC rule 3745-31-05(A)(3) (PTI 17-1325)	PE shall not exceed 0.72 lb/hr.
		PE shall not exceed 1.9 tpy.

**2. Additional Terms and Conditions**

- 2.a** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the use of the Wheelabrator baghouse to control fugitive emissions from alloy feed-bin loading and the use of the Torit bin-vent filter to control emissions from calcium flow-bin loading.

The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

- 2.b** The Wheelabrator baghouse system shall control fumes from the refining process as well as PE from alloy addition, as collected through the snorkel.

**II. Operational Restrictions**

1. The permittee shall employ the baghouse dust collection system (Wheelabrator) during all times of CAS-OB operation and associated material handling operations.

## II. Operational Restrictions (continued)

2. The permittee shall employ the Torit filter during all times of calcium transfer into the flow-bins.
3. The pressure drop across the baghouse shall be maintained within the manufacturer's recommended range, while the emissions unit is in operation, until a pressure drop range that is more representative of actual operating conditions can be established during the emission testing required in section A.V.2. The appropriate pressure drop range shall be determined and submitted in writing to the Ohio EPA, Southeast District Office within 1 month after completion of the emission tests.

The permittee may petition the Ohio EPA, Southeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Southeast District Office's satisfaction that the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emission unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once-per-shift basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the Torit filter and baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #17-1325, issued on 01/19/1995. The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

## IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.3.
2. The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Term and Condition A.1.c.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the Torit filter and/or baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #17-1325, issued on 01/19/1995. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

### 1.a Emission Limitation:

PE shall not exceed 0.0020 gr/acf from the Wheelabrator baghouse;

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

PE shall not exceed 0.72 lb/hr and 1.9 tpy.

Applicable Compliance Method:

The emissions limitation is based on combined emissions from the Wheelabrator exhaust and fugitives from the material handling operation at maximum operating rates.

Baghouse emissions are 0.0020 gr/acf:

(0.0020 gr/acf) (40,000 acf/min) (1 lb/7000 gr) (60 min/hr) = 0.69 lb/hr

Fugitive emissions are calculated as follows using AP-42 13.2.4, equation 1 (01/95) emissions estimates for material handling operations:

$$E = k (0.0032) [(U/5)^{1.3}] / [(M/2)^{1.4}]$$

70% capture within BOF shop

U = wind speed assumed 0.5 mph within BOP shop

k = 0.74

M = moisture = 0.1

E = emission factor (lb PE/ton) = 0.008 lb PE/ton

Maximum material throughputs:

Cooling scrap = 2.3 TPH (3 transfer points)

Aluminum = 1.5 TPH

MCFeMn = 0.25 TPH

FeSi = 0.4 TPH

HCFeMn = 1.5 TPH

Coke = 0.1 TPH

(0.008 lb PE/ton) ((3 \* 2.3) + 1.5 + 0.25 + 0.4 + 1.5 + 0.1) (1 - 0.7) = 0.03 lb PE/hr

Total hourly emissions = 0.69 lb PE/hr + 0.03 lb PE/hr = 0.72 lb PE/hr

Compliance shall be demonstrated by multiplying the result of the most recent emission test, in lb/hr, by the maximum annual hours of operation and adding fugitive annual emissions (0.03 lb/hr multiplied by annual hours of operation).

If required, compliance shall also be demonstrated based upon the emission testing methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

**1.c** Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

**1.d** Emission Limitation:

Visible particulate emissions from the Wheelabrator exhaust shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

**1.e** Emission Limitation:

PE shall not exceed 0.020 gr/acf of exhaust gases or no visible particulate emissions, whichever is less restrictive, from the Torit bin vent filter

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2 or the procedures specified in 40 CFR Part 60, Appendix A, Method 22, as appropriate.

**2.** The permittee shall conduct, or have conducted, emission testing for the CAS-OB baghouse exhaust in accordance with the following requirements:

- a. The emission testing shall be conducted within 6 months of permit issuance and every 2.5 years thereafter.
- b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.
- e. The pressure drop across the baghouse shall be monitored during each run of this emissions test to establish the pressure drop range as specified in section A.II.2.
- f. During each run, the permittee shall record visible particulate emission readings from the stack and fugitive visible particulate emission readings from non-stack egress points.

**V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

3. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the above testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #17-1325, issued on 01/19/1995. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** 80" HSM Hot Rolling (P909)  
**Activity Description:** Roughing and Finishing Stands for the 80" Hot Strip Mill

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
80" hot strip mill rolling operation (5 roughing stands, coil box, 6 finishing stands, final coiler)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	use of reasonably available control measures to minimize or eliminate emissions of fugitive dust (see section A.1.2.a)

**2. Additional Terms and Conditions**

- 2.a The permittee shall maintain and employ the hot strip mill within a building enclosure that is properly maintained in a manner that will minimize or eliminate visible emissions of fugitive dust.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**IV. Reporting Requirements**

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

**V. Testing Requirements**

1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

**1.a Emission Limitation:**

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**VI. Miscellaneous Requirements**

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Blast Furnace 1 (P911)  
**Activity Description:** Blast Furnace including furnace, skip hoist, casthouse, stoves, bleeders

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Blast Furnace no. 1 casthouse	OAC rule 3745-17-07(B)	Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	use of reasonably available control technology to minimize or eliminate visible emissions of fugitive dust (See sections A.I.2.a and A.I.2.b.)
Blast Furnace no. 1 stove stacks	40 CFR Part 63, Subpart FFFFF	See sections A.IV.3 and A.IV.4.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-13(E)(5)(a)	Particulate emissions from stove stack "A" shall not exceed 1.8 lbs/hr.  Particulate emissions from stove stack "B" shall not exceed 0.87 lb/hr.
	OAC rule 3745-18-06(E)(2)	Emissions of sulfur dioxide (SO <sub>2</sub> ) shall not exceed 1662.5 lbs/hr (see section A.I.2.c)
	OAC rule 3745-18-47(C)	The hydrogen sulfide (H <sub>2</sub> S) content of the coke oven gas (COG) combusted in this emissions unit shall not exceed 50 grains of H <sub>2</sub> S per 100 dscf of COG.
Blast Furnace no. 1 bleeders	40 CFR Part 63, Subpart FFFFF OAC rule 3745-17-08(B)	See sections A.IV.3 and A.IV.4. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-17-13(E)(5)(b).
	OAC rule 3745-17-13(E)(5)(b)	There shall be no particulate emissions from the bleeders serving emissions unit P911.
Blast Furnace no. 1 flue dust handling	OAC rule 3745-17-07(B)	Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	use of reasonably available control measures to minimize or eliminate visible emissions of fugitive dust (see section A.I.2.b)

**2. Additional Terms and Conditions**

**2.a** Emissions from blast furnace no. 1 shall be controlled through the use of the following:

- i. small bell and large bell charging;
- ii. flame suppression over trough to minimize or eliminate emissions;
- iii. steam suppression at tap hole to minimize or eliminate emissions;
- iv. flame suppression at torpedo cars to minimize or eliminate emissions; and
- v. iron runner covers and flame suppression to minimize or eliminate emissions.

**2.b** The permittee shall utilize the following control measures when handling flue dust:

- i. water suppression during all flue dust loading, unloading, and handling operations;
- ii. minimization of drop heights during transfer operations;
- iii. use of an enclosed conveyance system for flue dust transfer, where possible; and
- iv. maintenance of settling chamber and associated flue dust equipment to eliminate fugitive emissions during transfer and blast furnace gas cleaning operations.

## 2. Additional Terms and Conditions (continued)

- 2.c Maximum SO<sub>2</sub> hourly emission limitations are calculated per OAC rule 3745-18-06(E)(2) by the following equation:

$$\text{AER} = 30 \times (P)^{0.67}$$

Per historical permit application/production data, P = 400.35 tons/hr

$$\text{AER} = 1662.5 \text{ lbs/hr of SO}_2$$

Because only 100% desulfurized coke oven gas is combusted in this emission unit, the actual SO<sub>2</sub> emissions are small in comparison to the allowable; therefore, no monitoring, record keeping, or reporting is required.

## II. Operational Restrictions

None

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform visible emission readings of the fugitive emissions from the casthouse roof monitor which is employed for blast furnace no. 1. The visible emission readings shall be performed by certified smoke readers in accordance with the procedures contained in section (B)(1) of OAC rule 3745-17-03.

Readings taken during one entire cast shall be performed at least once per week and shall be recorded on forms which have been approved by the Director. Observations shall commence when tapping occurs.

2. The permittee shall perform visible emission readings of the fugitive emissions from the flue dust handling operation for blast furnace no. 1. The visible emission readings shall be performed by certified smoke readers in accordance with the procedures contained in section (B)(1) of OAC rule 3745-17-03.

Readings shall be taken once per week or during each flue dust handling event (whichever is less frequent) at the collection point during flue dust handling activities and shall be recorded on forms which have been approved by the Director.

3. Refer to Part II - Specific Facility Terms and Conditions A.1 and A.2.

4. The permittee shall perform daily checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible fugitive particulate emissions from the blast furnace no. 1 casthouse, bleeders, or flue. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible fugitive particulate emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stove stacks. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

## IV. Reporting Requirements

1. On a quarterly basis, the permittee shall submit to the Ohio EPA, Southeast District Office the results of all Method 9 visible emission readings performed in accordance with section A.III, above, that indicate a violation of the applicable standard. Each report shall be submitted by the last day of the month following the calendar quarter, and shall cover the previous calendar quarter.
2. The permittee shall submit semiannual written reports that identify each day during which COG with a H<sub>2</sub>S content greater than 50 grains of H<sub>2</sub>S per 100 dsfc of COG was combusted.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the blast furnace no. 1 casthouse, bleeders, or flue serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stove stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

### 1.a Emission Limitation:

Particulate emissions from stove stack "A" shall not exceed 1.8 lbs/hr.  
Particulate emissions from stove stack "B" shall not exceed 0.87 lb/hr.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.

### 1.b Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the procedures specified in Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

### 1.c Emission Limitation:

There shall be no particulate emissions from the bleeders serving emissions unit P911.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.

### 1.d Emission Limitation:

Emissions of SO<sub>2</sub> shall not exceed 1662.5 lbs/hr.

Applicable Compliance Method:

For the worst case scenario, using 100% coke oven gas for combustion in this emissions unit, compliance shall be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (million cf/hr) by the maximum coke oven gas H<sub>2</sub>S content of 50 gr/100 dscf. The maximum usage shall be multiplied by the H<sub>2</sub>S grain loading (50 gr H<sub>2</sub>S/100 dscf) and then by the molecular weight ratio of H<sub>2</sub>S to SO<sub>2</sub> (34 gr H<sub>2</sub>S/64 gr SO<sub>2</sub> = 0.53125). This number shall then be divided by 7000 gr/lb in order to obtain the maximum emission rate of SO<sub>2</sub>, in lbs/hr.

### 1.e Emission Limitation:

The H<sub>2</sub>S content of the COG combusted in this emissions unit shall not exceed 50 grains of H<sub>2</sub>S per 100 dscf of COG.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in Part II, sections A.1 and A.2.

## 2. The permittee shall conduct, or have conducted, emission testing for the blast furnace no. 1 stove stacks in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months of the Title V permit issuance and shall be conducted every 2.5 years thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** Cold Strip HCl Tank (T102)  
**Activity Description:** 20,000 gallon tank to store raw HCl used for pickling process

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
20,000-gallon hydrochloric acid storage tank	40 CFR Part 63, Subpart CCC	See A.I.2.a below.

**2. Additional Terms and Conditions**

- 2.a The permittee shall provide and operate, except during loading and unloading of acid, a closed-vent system for this emissions unit. Loading and unloading shall be conducted either through enclosed lines or each point where the acid is exposed to the atmosphere shall be equipped with a local fume capture system, ventilated through a dedicated scrubber system.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall inspect each vessel semiannually to determine that the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, are installed and operating when required.
2. The permittee shall maintain records of each of the inspections identified in section A.III.1. These records shall be maintained on-site for at least 5 years and shall include, at a minimum, the following information:
  - a. the name of the individual conducting the inspection;
  - b. the date that the inspection was conducted;
  - c. the identification of any problems noted with the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable;
  - d. the identification of all times that the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, were not operating when required; and
  - e. the corrective actions taken to correct any malfunction or failure of the system as described in section A.III.2.c or A.III.2.d.

**IV. Reporting Requirements**

1. The permittee shall submit reports outlining the findings of the semiannual HCl storage vessel inspection required by 40 CFR Part 63, Subpart CCC. This report shall contain all findings, including a statement that all systems are functional if that is the case. The report shall also include a description of all malfunctions as recorded in section A.III.2, if applicable. The report, to be certified by the permittee or other responsible official, shall be submitted semiannually and delivered or postmarked by February 15 and August 15 of each year.

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

**Operations, Property,  
and/or Equipment**

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

**2. Additional Terms and Conditions**

**None**

**II. Operational Restrictions**

**None**

**III. Monitoring and/or Record Keeping Requirements**

**None**

**IV. Reporting Requirements**

**None**

**V. Testing Requirements**

**None**

**VI. Miscellaneous Requirements**

**None**

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